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CONTENTS

PAPERS:

	<i>Pages</i>
1. <i>An Examination of the Theory of the Occupation of the Greek Bactria by Mithridates I</i> DR. B. N. MUKHERJEE	1
2. <i>On Buddhist Studies in the U.S.S.R.</i> DR. G. M. BONGARD-LEVIN	6
3. <i>Hagargundi: A Fossiliferous Middle Stone Age Site</i> SHRI K. PADDAYYA	12
4. <i>Rock Sculptures in Bihar</i> SHRI ADRI BANERJI	15
5. <i>Statistical Analysis of Some Megalithic Burials in Medak District, A.P.</i> DR. URMILA PINGLE	22
6. <i>The Vakeels in the Early Days of British Rule in Bengal</i> DR. CHITTARANJAN SINHA	27
7. <i>Thermal Springs in India</i> DR. S. DEB	37
8. <i>Author and Subject Catalogue of the Botanical and Allied Articles Published in the Periodicals of the Asiatic Society of Bengal 1788-1967</i> SHRI A. R. DAS	42
9. <i>New Buddhist Texts from Central Asia</i> DR. G. M. BONGARD-LEVIN AND E. N. TYMOKIN	63
10. <i>Rhythm in Uneven Syllabic Metres in Sanskrit</i> SHRI A. D. MUKHERJI	68

REVIEWS OF BOOKS:

1. <i>Upaniṣat Pañcaka</i> CHITRITA DEVI	89
2. <i>A Descriptive Catalogue of Sanskrit Manuscripts in the Collections of the Sanskrit College, Volume I, Part III</i> JAGADISH CHANDRA TARKATIRTHA AND ANANTA DEV TARKATIRTHA	90
3. <i>Padacandrikā—Rāyamukuta</i> , Edited by K. K. DATTA SASTRI	90
4. <i>The Jallianwala Bagh Massacre</i> RAJA RAM	92

5. <i>History of the Freedom Movement in India</i>	95
TARACHAND	
6. <i>Stone Tools—History and Origins</i>	98
S. R. DAS	
7. <i>Reform and Regeneration in Bengal</i>	100
AMITABHA MUKHERJEE	
8. <i>Sir William Jones a Study in Eighteenth Century British Attitudes to India</i>	101
S. N. MUKHERJEE	
9. <i>Ajanta Murals</i> , Edited by	103
A. GHOSH	
10. <i>Four Essays on the Poetry of Yeats</i>	105
S. C. SEN	
11. <i>Studies in Western Influence on Nineteenth Century Bengali Poetry</i> ..	106
HARENDRA MOHAN DAS GUPTA	
12. <i>The Unwritten Song: Vol. II</i> , Translated and Introduced by ..	107
WILLARD R. TRASK	

COMMUNICATIONS:

1. <i>Stone Images of Vishnu from Mursidabad District</i>	108
DR. S. R. DAS	
2. <i>A Frieze of Terracotta Birds</i>	111
DR. S. R. DAS	
3. <i>A Miniature Metal Image of Gaṇeśa</i>	113
DR. S. R. DAS	
4. <i>A Fragmentary carved stele from Mursidabad District</i>	116
DR. S. R. DAS	
5. <i>Discovery of two plant Fossil Fragments from Rājāḍidāṅgā</i> ..	118
DR. S. R. DAS	
6. <i>An Allusion to Kanishka in the Suśruta Samhitā</i>	120
DR. B. N. MUKHERJEE	
7. <i>An Interesting Copper Coin</i>	121
DR. B. N. MUKHERJEE	
8. <i>Some Inscribed slabs of stones in the neighbourhood of Nalanda stone Temple Ruins</i>	122
SHRI RAMPRASAD MAJUMDAR	
9. <i>An Interesting Inscription</i>	123
DR. B. N. MUKHERJEE	

10.	<i>An Interesting intaglio seal in the collection of Prof. S. K. Saraswati ..</i>	125
	DR. B. N. MUKHERJEE	
11.	<i>The Origin of the Śaka Era</i>	126
	DR. R. C. MAJUMDAR	
12.	<i>A coin of Sanabares</i>	128
	DR. B. N. MUKHERJEE	
13.	<i>Śakrogarh</i>	129
	SHRI ADRIS BANERJI	

JOURNAL OF THE ASIATIC SOCIETY
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AN EXAMINATION OF THE THEORY OF THE
OCCUPATION OF THE GREEK BACTRIA
BY MITHRIDATES I

B. N. MUKHERJEE

Born within a few years of each other, the kingdom of the Arsacids and that of the Bactrian Greeks did not enjoy any lasting accord between themselves. According to Strabo, Arsaces fled away "from the enlarged power of Diodotus",¹ the first monarch of the Bactrian Greeks. Justin in a way corroborates this statement by observing that Arsaces "raised a large army through fear of Seleucus and Theodotus (i.e., Diodotus),² the king of the Bactrians",³ and that the first mentioned suzerain was "relieved of his fears by the death of Theodotus."⁴

The other side of the picture—the success of the Imperial Parthians against the Bactrian Greeks—can be visualised also from Strabo's accounts. This geographer refers in one place to the Parthian conquests from Eucratides of the satrapies of Aspiones and Turiva (σατραπείας... ὧν τὴν Ἀσπίωνον καὶ τὴν Τουριοῦαν) of Bactriana,⁵ and in another to the Parthian acquisition of a part of Bactriana from Eucratides and his followers prior to taking a portion of the same country from the Scythians.⁶

Eucratides of the above statements of Strabo seems, as it appears from their contexts, to be Eucratides I.⁷ According to Justin, Mithridates of Parthia and Eucratides of Bactria, who may be identified respectively with Mithridates I⁸ and Eucratides I,⁹ began to reign simultaneously. Hence Mithridates I probably wrested a part of Bactriana from Eucratides I.

It should be noted here that W. W. Tarn emended, apparently for the sake of convenience of interpretation and identification, the expression σατραπείας... ὧν τὴν τε Ἀσπίωνον καὶ τὴν Τουριοῦαν as σατραπείας... ὧν τὴν τε Ἀσπίωνον Ταπουρναίαν καὶ τὴν τε τραξιανῶν.¹⁰ Thus according to him, the correct names of the satrapies indicated by Strabo are Aspiones (or Aspionus) Tapuria (or Tapuri) and Traxiane.¹¹

¹ Strabo, *Geographikon*, XI, 9, 2.

² The word *Theodotus* as the name of a Bactrian Greek king occurs only in Chapter XLI of the *Epitome* of Justin. In the corresponding section of the *Prologi* of Trogus' *Historiae Philippicae*, on which Justin's *Epitome* is based, appears the name *Diodotus*. The existence of the latter name in the list of the Bactrian Greek monarchs is attested by coins (R. B. Whitehead, *Catalogue of the Coins in the Panjab Museum*, Vol. I., Oxford, 1914 p. 9). Hence we should consider *Theodotus* as a misspelling for *Diodotus*. Διοδότος could have indeed been wrongly written by a scribe, ignorant of history, as Θεοδότος. See also A. K. Narain, *The Indo Greeks*, Oxford, 1957, p. 13.

³ Justin, *Epitoma Historiarum Philippicarum*, XLI, 4.

⁴ *Ibid.*, XLI, 4.

⁵ Strabo, XI, 11, 2.

⁶ *Ibid.*, XI, 9, 2.

⁷ *Ibid.*, XI, 11, 1-2; W. W. Tarn, *The Greeks in Bactria and India* (2nd edition), Cambridge, 1952, p. 219.

⁸ A. K. Narain, *Op. cit.*, p. 53.

⁹ Justin, XLI, 6, 1. This testimony of Justin militates against a theory of S. Konow, which apparently advocates Mithridates I as the conqueror of the Scythians, who had themselves ended the Greek rule in Bactria (S. Konow, *Corpus Inscriptionum Indicarum*, vol. II, pt. I, p. XXIX). See also J. E. Van Lohuizen-De Leeuw, *The "Scythian" Period*, p. 38.

¹⁰ *Proceedings of the British Academy*, 1930, vol. XVI, p. 126.

¹¹ *Ibid.*, pp. 124-126.

Tarn observes that Aspiones was the name of a satrap and that his name was added to that of the satrapy of Tapuria in order to distinguish it from the better known Tapuria in the Elburz region (Tabaristan).¹²

The same scholar has also tried to demonstrate that Tapuria is represented by the modern region of Tapuri about the upper Artek river, and that Traxiane may be located in the Kasaf-rud valley and probably also in the area extending upwards.¹³

These are to the west of Merv and Herat which are most probably referred to respectively as Antiochia Margiana and Alexandria of the Arii¹⁴ in ancient Greek and Latin texts.¹⁵ Since Margiana and Aria are generally described in the similar class of sources as situated respectively to the west and south (and/or west) of Bactriana,¹⁶ the latter country did not ordinarily have within its geographical limits the lands denoted by the names *Tapuria* and *Traxiane*.

Thus the acceptance of the above emendation and identification suggested by Tarn should indicate a Parthian conquest of a part of the Bactrian kingdom, then ruled by Eucratides I, but not of Bactria proper.¹⁷ Even if Tarn's observations are considered incorrect, there are other data indicating the location of the satrapies in question outside Bactria proper. According to another passage of Strabo, Bactriana of the Greeks was annexed by some nomadic peoples.^{17a} These nomads apparently conquered among themselves the whole of this Bactriana, although all of their conquests might not have taken place at one and the same time. Bactriana in question most probably included at least Bactria proper. And since we have no definite evidence of a Greek re-conquest of a part of Bactria proper from the Arsacids, it is wise to maintain, at least in the present state of our knowledge, that the satrapies acquired by the Imperial Parthians from Bactriana of the Greeks lay outside Bactria proper.¹⁸

This hypothesis, however, runs counter to the theory of at least a temporary Parthian occupation of Bactria of the Greeks. This theory, advocated by some scholars including W.W. Tarn and F. Altheim is based mainly, on a statement of Justin and on the alleged Parthian imitations of some Graeco-Bactrian coins.

Justin states that "on the other hand, the Bactrians, by different (or diverse) throwing to and fro (i.e., continual) wars, lost not only (their) royal government (i.e., kingdom) but also (their) liberty, since (they were)

¹² *Ibid.*, p. 124.

¹³ *Ibid.*, p. 126; W. W. Tarn, *Op. cit.*, p. 88

¹⁴ J. W. McCrindle, *Ancient India as Described by Ptolemy*, pp. 264 and 309-310; W.H. Schoff, *Parthian Stations, by Isidore of Charax* p. 31.

¹⁵ Strabo, XI, 10, 1 & 2; Isidore, *Stathmoi Parthikoi*, sec. 14 & 15; Ptolemy, *Geographike Huphegesis*, VI, 10, 4; VI, 17, 6 etc.

¹⁶ Strabo, XI, 10, 1 & 2; XI, 11, 1; Ptolemy, VI, 10, 1; VI, 11, 1; VI, 17, 1 etc.

¹⁷ For a general description of Bactria, see Ptolemy, VI, 11, 1f.

^{17a} Strabo, XI, 8, 2

¹⁸ This observation is strengthened by datum furnished by the very same section of Strabo's *Geography* which refers to the Parthian conquest of the satrapies of Turiva and Aspiones from Bactriana of the Greeks. The information in question refers to Bactriana of the Greeks as divided into satrapies (XI, 11, 2) and thereby alludes to its political, and not to the geographical, boundaries.

No doubt, Tarn has stated in one place that the Greeks divided "Bactria itself" and not the Graeco-Bactrian empire (*Proceedings of the British Academy*, 1930, Vol. XVI, p. 122). However, his own theory about the identification and locations of the two satrapies, which were conquered by the Arsacids from the Greeks, should suggest that he wants to place them outside Bactria proper. Hence Tarn surely believe that the Greeks divided into satrapies the lands included within the political or administrative jurisdiction of the country named after Bactria.

fatigued in wars of (i.e., against) the Sogdians and the Arachosians and the Drangians and the Arians and the Indians and at (a time) after (or at last) were subdued (or pressed down or oppressed or violently sieged or overthrown) as if (people) without blood (i.e., without vigour) by the weaker (or more inefficient) Parthians....." (*Bactriani autem per varia bella iactati non regnum tantum, verum etiam libertatem amiserunt, siquidem Sogdianorum et Arachotorum et Areorum et Indorum que bellis fatigati ad postremum ab invalidioribus Parthis velus exsangues oppressi sunt*).¹⁹

Tarn believes that this statement indicates that Eucratides I was "finally crushed by the 'weaker' Parthians" under Mithridates I, and that the Parthians could have been called 'weaker' before the "full establishment" of the empire of the latter monarch. Tarn also thinks that Mithridates I at least temporarily occupied Bactria.²⁰

A critical analysis of this statement of Justin reveals the inherent weakness of Tarn's theory. It is clear from this sentence that the Bactrians were greatly weakened by wars with the peoples hailing from or coming through the countries like Sogdiana, Arachosia, Drangiana, Aria and India, and that later they were finally overthrown by the Parthians. And since it is clear from the context, that the Bactrians of Justin's sentence in question mean the Greeks of Bactria,²¹ we may assume that the last vestiges of the rule of the Greeks, who could be called Bactrians, were destroyed by the Parthians in or outside Bactria. Thus the sentence under review alludes to the end of the rule of the Bactrian Greeks. It is well-known and universally admitted that the latter event must be placed at least some time after the reign of Eucratides I.

If the expression *invalidioribus Parthis* means "weaker Parthians", it may also refer to "more inefficient Parthians".²² As a nation the Greeks were certainly more efficient than the Parthians. Even if for the sake of argument we interpret the expression concerned as denoting "weaker Parthians", we should admit that it is not impossible that a Western author like Justin, who might naturally have sympathies for the Greeks and disregard for the Parthian power,²³ described the latter as weaker than the power it subdued. However, we must concede that we do not know the actual strength of the Greek monarch or monarchs who was or were overthrown by the Parthians in or outside Bactria. Again, there are several phases in the history of the Parthian empire when, due to foreign invasions or/and internal dissensions, the power of the Arsacids was weakened.²⁴

Whatever may be the correct interpretation of the term *invalidioribus Parthis* occurring in Justin's sentence in question, the statement itself does not appear to allude either to the overthrow of Eucratides I by Mithridates I, or to occupation of the Bactria by the Parthian suzerain. No doubt, the section in which Justin's sentence concerned occurs deals with the reign of Eucratides (I) and Mithridates (I).²⁵ Nevertheless, in the sentence in question and in the one preceding Justin seems to make a comparison between the ultimate fates met, so far as he knew, by the Parthians and the Bactrians Greeks.²⁶ This type of occasional digressions from the subject

¹⁹ Justin, XLI, 6, 3.

²⁰ W. W. Tarn, *Op. cit.*, pp. 222-223.

²¹ Justin, XLI, 6, 1f.

²² C. Lewis and C. Short, *A Latin Dictionary*, p. 993.

²³ It is interesting to note that another Western author speaks of the "wicked Parthians".

²⁴ N. C. Debevoise, *A Political History of Parthia*, pp. 35f, 138, 143f, etc.

²⁵ Justin, XLI, 6, 1f.

²⁶ *Ibid.*, XLI, 6, 2-3.

of discussion is not an uncommon feature in the Greek and Latin writings of the early centuries of the Christian Era.²⁷

It should also be noted that immediately after the sentence under review Justin states that "however, Eucratides had great military talents,"²⁸ and refers to his conquests,²⁹ and then speaks of his death at the hands of "his³⁰ son".³¹ Thus Justin clearly indicates that Eucratides (I) was killed and so crushed by *his own son*, and not by the Parthians. There is no indication of the Parthian conspiracy with the son of Eucratides (I) against him.³²

Tarn's theory is thus unsupported by Justin's statement. We must now consider the numismatic evidence adduced by the same scholar.

Tarn, following E. J. Rapson,³³ suggests that Mithridates I copied the Dioscuri type of Eucratides I,³⁴ and that this indicates the Parthian occupation of Bactria or a part of it.³⁵ It is observed that Mithridates I's coins bearing the "victory in biga" type were minted for circulation in Bactria³⁶.

We never deny the feasibility of Parthian imitation of Eucratides' coinage. But it must be taken into account that Mithridates I could have copied some types of Eucratides I after coming into contact with the latter's currency, consequent to annexing a part of his kingdom. That part, however, need not necessarily be placed in Bactria. We have already demonstrated that Mithridates I might have conquered a portion of Eucratides I's dominions lying outside Bactria proper.

The coins displaying "victory in biga" were struck, as admitted by

²⁷ Occasional digressions from the subject of discussion are not uncommon in the writings of the classical authors. Strabo mentions Chaarene as a place under the Parthian rule (XV, 2, 11) in the midst of his description of Alexander's itinerary in the country of the Paropamisadae and the neighbouring lands (XV, 2, 10-11). Similarly, Justin refers to the foundation of the Parthian empire (II, 3) in the course of his discussion of the history of the Scythians in and before the time of Darius I (II, 1-5). We cannot infer from these testimonies that neither Strabo nor Justin was aware of the chronology of the rise of the Parthian empire. For both Strabo (XV, 3, 24) and Justin (XI, 9; XLI, 4) certainly knew that this took place not only long after the Achaemenids, but also after Alexander.

²⁸ Justin, XLI, 6, 3-5.

²⁹ *Ibid.*

³⁰ *Ibid.* XLI, 6, 5. Tarn believes that Eucratides I was killed by a son of Demetrius (W. W. Tarn, *Op. cit.*, pp. 219-22). But, the contrast of *filius* and *pater* in the statement of Justin surely indicates that the murderer was a son of Eucratides (I). See also A. K. Narain, *Op. cit.*, p. 70; *Journal of the Royal Asiatic Society of Ireland and Great Britain*, 1944, p. 63; *Numismatic Chronicle* 1951, p. 15f. etc.

³¹ Justin, XLI, 6, 5.

³² Tarn's theory about a Parthian conspiracy with son of Demetrius I (*sic*) against Eucratides I is based, to a great extent, on the belief that Justin, XLI, 6:3 refers to the Parthian victory over Eucratides (I). (W. W. Tarn, *Op. cit.*, p. 220). We have already demonstrated that Justin's passage in question alludes to a Parthian success against the Bactrians in some period after Eucratides (I).

We cannot also support Narain who sensed a Parthian plot against Eucratides I in Justin's reference to Parthia's interest in two satrapies of Bactria and his statement that the son who killed Eucratides I did so "as if he had killed an enemy", (A. K. Narain, *Op. cit.*, p. 72). We do not know whether Justin ever alluded to Parthian interest in the two satrapies of Bactria. Moreover, the son's inimical attitude to his father need not necessarily presuppose the former's connection with the Parthians.

We admit that it is not impossible for the Parthians to instigate the son against the father. But the evidence at our disposal does not indicate that. So also we do not know whether the Parthians gained any territorial advantage from the quarrel between the son and the father.

³³ E. J. Rapson, *Ancient India* (edition of 1914), p. 126.

³⁴ W. Wroth, *A Catalogue of Greek Coins in the British Museum, Catalogue of the Coins of Parthia*, pl. II, 6-7; *PMC*, vol. I, p. 20.

³⁵ W. W. Tarn, *Op. cit.*, pp. 222-223.

³⁶ *Ibid.*, p. 222, fn. 2

Tarn himself,³⁷ in Media,³⁸ and so they were probably meant for circulation in that territory.

Altheim attributed some tetradrachms of Mithradates I to a Bactrian mint.³⁹ But in fact they were minted, as E. T. Newell has already proved,⁴⁰ at Seleucia-on-the-Tigris⁴¹.

In this connection we may refer to the fact that Justin refers to contingents from Bactria, Elymain and Persis as assisting the Seleucid Demetrius (II) against the Parthians.⁴² However, no source suggests that Bactria proper suffered any territorial loss when Demetrius II was captured by Mithridates I.⁴³

Here we may also judge the relevance of a statement by Justin and of another by Orosius to our present study. According to Justin, Mithridates (I) added the territories of several peoples to the Parthian empire, which under him stretched from the mount Caucasus to the river Euphrates.⁴⁴ If the Caucasus is identified with the Hindu-Kush,⁴⁵ we may have to admit the possibility of the Parthian occupation of Bactria between the latter mountain and the regions which were definitely under Mithridates.⁴⁶ But there is no certainty regarding the identification of the Caucasus in question with the Hindu-Kush.⁴⁷ Nor was it impossible for the Parthians to approach the Hindu-Kush⁴⁸ region or the country of the Paropamisadae through Drangiana⁴⁹ or some territory other than Bactria.

Orosius observes that Mithridates (I) "subdued all the peoples that dwelt in the country between the Hydaspes and the Indus. He extended his bloody rule up to India".⁵⁰ Though the identification of the Hydaspes is uncertain,⁵¹ the Indus in Orosius' statement can mean nothing but the great Indian river of that name, which is regarded in many early classical sources as forming the western boundary of India.⁵² This statement of Orosius may, therefore, suggest the extension of Mithridates I's authority up to the Indus.⁵³ We have suggested elsewhere that he might have been responsible for the extinction of the Indo-Greek rule in a territory on the lower Indus.⁵⁴ However, this suggestion does not necessarily imply the conquest of any part of Bactria from the Greeks.

Judged from all these angles, the theory of a Parthian occupation of Bactria proper during the reign of Mithridates I appears to be a myth.

³⁷ *Ibid.*,

³⁸ *Catalogue of the Coins of Parthia*, p. XXVI.

³⁹ F. Altheim, *Weltgeschichte Asiens im griechischen Zeitalter*, vol. II, pp. 59f.

⁴⁰ *NC.*, 1924, p. 147.

⁴¹ *Ibid.*, 1951, p. 16. Mithridates I's bronze coins bearing a horse head on the reverse (Coins of Parthia, p. 9) were probably struck at Ecbatana (*Ibid.*, 1951, pp. 18-19).

⁴² Justin, XXXVI, 1, 4.

⁴³ *Ibid.*, XXXVI, 1, 5-6, XXXVIII, 9, 2-3; Orosius, *Historiarum Adversum Paganos*, Libri VII, V, 3, 17.

⁴⁴ Justin XLV, 6, 8.

⁴⁵ J. W. McCrindle, *The Invasion of India by Alexander the Great as Described by Arrian, Q. Curtius, Diodotus, Plutarch and Justin*, p. 58, fn. 2.

⁴⁶ N. C. Debevoise, p. 19, and fn. 86.

⁴⁷ J. W. McCrindle, *op. cit.*, (n. 45) p. 58, n. 2.

⁴⁸ J. W. McCrindle, *op. cit.* (n. 14), p. 311

⁴⁹ Ptolemy, VI, 18, 1f.

⁵⁰ Orosius, *op. cit.*, V, 3, 16.

⁵¹ *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 1906, pp. 49-72; E. J. Rapson, (edition), *The Cambridge History of India*, vol. I, p. 368; M. P. Charlesworth, *et. al.* (editors), *The Cambridge Ancient History*, vol. IX, p. 579.

⁵² Eratosthenes quoted in Pliny, *Naturalis Historia*, VI, 21, 57; Strabo, XV, 2, 1; etc.

⁵³ Mithridates I could have approached India through Drangiana, Arachosia, Gedrosia, etc.

⁵⁴ B. N. Mukherjee, *An Agrippan Source—A Study in Indo-Parthian History*, Calcutta, 1969 pp. 27-32.

ON BUDDHIST STUDIES IN THE USSR

G. M. BONGARD-LEVIN

The Soviet scholars pay a great attention to the Study of Buddhism and Buddhist culture.

And there are good reasons for that. For my country in one of those where Buddhists live, it possesses a large collection of Buddhist manuscripts and above all Soviet orientalists realize the importance of Buddhist Studies, the role of the Buddhism in the historical and cultural development of the countries of the East both in the past and present times.

The interest for Buddhism in Russia has an old record. We find the first references to Buddha and his followers in the ancient chronicles of Old Russia. Afanacy Nikitin, the first Russian merchant to visit India. in the 15th century, writes about Buddha's religion in his diaries. Buddhists are mentioned in Russian documents of the 18th century. The interest to Buddhism increases at the end of the 17th century, when Buddhism—Lamaism penetrates into Buryatia—a region of the Russian state.

However only in the 19th century the Western world begins to realize the importance of the cultural heritage of the peoples of the East and begins to appreciate their wonderful written relics. And it is only then that the genuine study of Buddhism, its culture, philosophy, history and religion begins.

The founder of the Russian school of Buddhism was Minayeff. (Born in 1840 he died in 1890.) Besides being the author of several works on Buddhism he published important Pali and Sanskrit Buddhist texts.

The first to be mentioned among the Pali writings that were published and translated by Minayeff is the Patimokha—one of the most important texts of the Vinaya-Pitaka. While working on it Minayeff made use of the commentaries to Patimokha, as well as of a number of old manuscripts. The publishing of Patimokha was an event of great significance since it started a whole series of textological works in Russian Buddhology.

Minayeff was the first to publish another notable Pali work—the Kathavatthupakarana—which relates the most disputed questions of Buddhism, and sets out the main points of the arguments led between the orthodox Buddhists on the one hand and representatives of various heretical schools on the other hand.

Minayeff not only published the text of the Kathavatthu but analyzed it very scrupulously as well. Several volumes of the Pali Text Society Journal carry Pali manuscripts from India, Ceylon, and Burma, prepared for publication by Minayeff. He had come into possession of them during his journey to those countries. They are Petavatthu, Anagatavamsa, Sandesakathā, Sima-vivāda-vinicchaiyakathā and some others.

Minayeff was one of those scholars who were aware of the importance of such an original and interesting phenomenon as the Jātakas, the publishing of which had not been carried out yet at that time. In a series of articles on the Jātakas, Minayeff regards them as a form of folklore that helps much in a serious study of the folklore creations.

As for the Sanskrit Buddhist works Minayeff was the first to publish the Bodhicaryavatara—a poem of the well-known Buddhist priest and philosopher of the 7th century Santiveda.

Minayeff's interests and activities comprised not only textual work and that of a publisher. He was a distinguished scholar of the history and

philosophy of Buddhism as well. His main work was "Buddhism. Analysis and Materials", published in 1877. It was a considerable contribution to the world of Buddhology, and was translated into French with a preface written by the prominent French orientalist Emile Senart.

Minayeff fully realized and highly estimated the important role of Buddhism in the cultural and historical development of the East. He was one of the first European scholars who tried to correlate certain events of Buddhist history with actual milestones of the political and social history of those countries where Buddhism was professed.

Minayeff had an excellent command of the Pali language. During his stay in Ceylon he took part in disputes conducted in Pali on various points of the Buddhist doctrine. He is the author of the grammar of the Pali language, which has won a world-wide recognition and has been translated into English and French. It has been used as a grammar-book in Burmah and in Ceylon.

Minayeff took a journey to the East in order to make a personal acquaintance of genuine Buddhism, to see with his own eyes its relics, to make clear for himself the ideas and spirit of Buddhism, the importance of the Buddhist culture for the history of the East. Minayeff particularly stressed that an educated man of our time should be acquainted with Buddhism.

Minayeff was the founder of the Russian school of Buddhism. His investigations were carried on by his numerous disciples. The most prominent of them were academicians S.F. Oldenburg and F.I. Stcherbatsky.

It is impossible to attach Oldenburg's interests to one aspect of Buddhism: the object of his studies were its literature, art, manuscripts, philosophy, and particularly Buddhist folklore tales—jātakas and avadānas. In 1894 he published a translation of several Buddhist legends, among them the Bhadrakalpāvadana and later—several essays on Pali jātakas.

Buddhist art was another point of interest for Oldenburg. He was the first who succeeded in interpreting some of the subjects of the Bharhut Stūpa. A number of his papers are devoted to the Buddhist iconography, Gandhāra art, to the image of Vajrapāṇi in Buddhist art.

The discovery of several Buddhist relics in Central Asia prompted him to take up the study of the newly discovered documents. When working on them he met with certain difficulties due to the reading of the texts, for the documents had been written in Brāhmī and Kharoṣṭhī, often in cursive forms. It was a time when the Buddhist manuscript paleography was far from being satisfactory and therefore Oldenburg had to begin with the deciphering of the texts. The result of his efforts was the publication of a whole number of important documents.

Oldenburg was the first to make a preliminary publication of a Prakrit version of the Dhammapada, written in Kharoṣṭhī. The fact that this publication introduced a new version of the Dhammapada arose a large interest among the orientlists and crowned Oldenburg with the just fame of being one of the best specialists in Buddhist manuscripts. Besides Oldenburg some fragments found in Central Asia by French Expedition guided by Dutreuil de Rhins were published by E. Senart. Recently a new publication of the complete text of the Prakrit Dhammapada version, based on the Leningrad manuscript, was carried out by the English scholar Brough.

Besides that Oldenburg published a considerable number of short Mahāyāna texts from Central Asia (East Turkistan).

Oldenburg had close ties with many outstanding scholars—Buddhologists and Orientalists, with A. Barth, E. Senart, E. Foucher. He was a close friend of Sylvain Lèvi, who came to Leningrad for the jubilee of

Oldenburg in 1932. Oldenburg was elected as the honourable member of Societe Asiatique in Paris.

Oldenburg was a champion of Buddhist art and literature. Another pupil of Minayeff—Stcherbatsky chose the philosophy of Buddhism as the object of his studies. He is the author of several outstanding works well-known both in the West and in the East. Here are the titles of some of them that were published in English: *Buddhist Logic*, Vol. I-II (it was reprinted several times quite recently); *The Conception of Buddhist Nirvāṇa*; *The Central Conception of Buddhism and the Meaning of the Word "dharma"*.

As we can see from these titles Stcherbatsky took up the most complicated and significant questions of the Buddhist philosophy and religion. He was still alive when his name won the reputation of one of the most outstanding Buddhologists of the world. Following the example of his teacher Minayeff when visiting India he took part in disputes on the main categories of Indian philosophy which were led in Sanskrit. Stcherbatsky published several important Buddhist works from Tibet having an excellent command not only of the Sanskrit language but of the Tibetan one as well. As an example of these I will refer to *Nyāyabindu*—the Buddhist school book of Dharmakīrti logic and to the *Dharmottara* commentaries to it and the translation of the work itself. In collaboration with the well known French scholar S. Lēvi and the Japanese scholar U. Wogihara he published the *Sphutartha Abhidharmakosavyākya*, the work of Yaśomitra.

Oldenburg and Stcherbatsky were the founders of the world-famous series *Bibliotheca Buddhica*. Quite a number of eminent Buddhologists took part in it like Finot, Lēvi, Vallee Poussin, Kern, Nanjio and many notable Buddhist writings had been published there, particularly those of north Buddhism. This series is still being carried on.

A talented pupil of Stcherbatsky, E. Obermiller took up the study of such Sanskrit and Tibetan Buddhist works as the *Prajñāpāramitā*. Among the numerous publications of the Buddhist texts it is necessary to mention the publication of the unique manuscript containing the *Kaśyapaparivarta*, accomplished by A. A. Stael-Holstein.

Thus we see that the Russian Buddhologists had made a considerable contribution to the study of various aspects of Buddhism, its history, art and literature. They had Buddhism. The Russian school of Buddhology deserves by right a world-wide recognition.

The Soviet scholars are aware of these traditions and do their best to carry them on. In the recent years Russian translations of the *Jātakamālā* of Āryasura and of the *Dhammapada* were accomplished, the latter with a circulation of 40,000 copies. They are going to be followed by the translations of such Pali Buddhist works as *Sutta-nipāṭa* and *Milinda-pañha*. Those scholars whose field of investigation is Ceylon are working on a translation of the ancient chronicle of Ceylon—the *Mahāvamsa*.

The new archaeological findings of Buddhist culture in Soviet Central Asia deserves a special attention.

Not long ago it was commonly believed that Buddhism had little influence in Central Asia before the Arab invasion. All efforts to find evidence of Buddhist culture there were a complete failure. But recent years have brought sensational discoveries and Soviet archaeologists have succeeded in finding wonderful remains of Buddhist culture in Central Asia, among them the first Buddhist manuscripts found in Soviet territory.

These discoveries make it quite clear that Buddhism played a considerable role in Central Asia in the first millenium A.D. and that Buddhist culture was widespread in the *Kushān* and post-*Kushān* periods. Remains of Buddhist culture have been found in various regions of Central Asia.

They belong to the time prior to the Arab invasion, beginning with the Kushān period.

In Kara-Tepe in old Termez which lies in the area of the ancient Bactria there was discovered a Buddhist monastery of the Kushān period with ruins of Buddhist architecture and what is most notable, inscriptions on pottery. These excavations carried under the guidance of Dr. B. Stavisky revealed a detailed lay-out of the monastery—a central yard with an over-ground building and two blocks of caves. The remains show that there had been a colonnade in the yard. The cave blocks consisted of four long arched corridors oriented by the four cardinal points which evidently ran round the central building. In the walls were found recesses where pedestals for Buddha statues could be placed.

From this evidence we can reconstruct the religious life of the Buddhist monks in the first centuries of the Christian era. If one compares the Buddhist architecture of Kara-Tepe with that of other countries, it becomes obvious that the local followers of Buddhism had introduced new elements into this architecture. First they largely used circular corridors surrounding the central building from three or four sides. Such a lay-out, however typical for religious premises of Central Asia, is quite rare for early pre-Kushān Indian Buddhist architecture.

Among the objects discovered in Kara-Tepe, the most interesting are the fragments of plaster statues, stone carvings and wall paintings. Unfortunately only small fragments of the statues have been found. Besides these, small images of the sedent Buddha have been discovered. And accidentally the archaeologists discovered a stone relief of the sedent Buddha dating back to the Kushān period.

Among the small finds of interest are pieces of stone canopies—chatras, stūpas, clay lotus flowers. There are also several interesting drawings on the walls of the caves, among them a picture of a Buddhist stūpa.

Other interesting discoveries in Kara-Tepe are Sanskrit inscriptions on pottery in Brāhmī and Kharoṣṭhī writings. Though the inscriptions are fragmentary, some words are legible. Thus, in one of the fragments the word 'sanghamitra' (friend of the Sangha) can be made out. Perhaps, it is the name of a Buddhist monk, the benefactor of the monastery. Another word 'dāna' (meaning 'giving') is very characteristic of such types of inscriptions. Besides Sanskrit inscriptions the archaeologists found in Kara-Tepe also some inscriptions of Bactrian language.

The archaeological discoveries in Kara-Tepe are not the only evidence of Buddhism there. They are also supported by written evidence. These written sources state that there were many Buddhists, followers of Vaibhāṣika, in this region during the Kushān period. Among the best-known followers of the Buddha mentioned are Ghoṣaka and Dharmamitra, famed for their commentaries of Buddhist religious texts. Buddhist tradition regards the former as the author of the commentary (Vibhāṣa) on the Abhidharma-pitaka and the latter as the author of the Vinaya-sūtra commentary. He translated works of the Vaibhāṣika School into Tokharian.

Discoveries important for the history and culture of Buddhism were made not only in Kara-Tepe but also in Zang-tepe. A castle with a large number of rooms dating back to the 6-7th century A.D., was excavated there. During this excavation archaeologists found remnants of birch bark with letters on it. When the bark was cleaned of mud, it became obvious that these were fragments of Sanskrit manuscripts written in Brāhmī.

According to the paleographical data, these manuscripts can be dated back to the 7-8th centuries. At present we can say that these Buddhist texts belong to works of the Vinaya type.

expanding the income potential of this profession, it brought both independence and prestige to its members³⁸.

ASSESSMENT OF THE INSTITUTIONS

In 1793, Cornwallis had entertained lofty visions about the future ability, integrity and respectability of the new institution of Pleaders: "They [Vakeels] would not only inform the Judges by their Pleadings, but also be a great check upon their [Judges'] conduct... They would put a stop to all the numerous abuses which are daily practised by the ministerial officers of the Court... They would disseminate amongst the people a knowledge of the many important Regulations which have been enacted... and will be enacted by [sic] consultation [with them]³⁹".

Subsequent appraisals of this institution, however, belied the founder's 'great' expectations.

The manuscript mentions Pratimoksha as part of the canon and describes the scribe as a follower of the Sarvāstivāda school. The analysis of the text has not yet been completed. However, the fact of its discovery alone is of great significance. It is quite possible that it is a collection of many canonic works which were studied and recited by the Buddhist monks.

In 1962, archaeologists discovered a Buddhist stūpa and the head of a huge Buddhist statue. One can judge the size of this statue by the distance between the chin and the crown of the head which measures 75 centimetres. New archaeological excavations show that Buddhism was professed in the north and east of Central Asia. In the Tchuy valley a large Buddhist temple was discovered on the ancient stronghold of Ack-Beshim.

In recent years new remarkable findings have come to light. On the Ajina-tepe hill a Buddhist monastery was discovered with many rooms. The central ones are connected by a complicated system of long rooms with arched ceilings which are in a good state of preservation even today.

Along its walls were discovered pedestals for statues. From the ruined Buddha figures it can be assumed that one of them was very large, measuring even up to 5 metres. On some of the heads of these Buddha statues the peculiar knob—uṣṇisa—has remained intact. The monastery can be dated back to the 7th-8th centuries. A.D.

Besides Buddha's statues the statues of Boddhisattvas also were found. Archaeologists think that one figure represents Kāshyapa—eminent disciple of Buddha. In the walls of monastery were found some fragments of wall-paintings.

There are several scenes depicting gift-bearing: rich donors offer gold and silver vessels and flowers to honour the Buddha.

The archaeologists excavated the special hall perhaps dhamma-sāla (preaching hall) where could assemble monks and laymen. But the most important finding is the colossal figure of Buddha lying in nirvāṇa. The size of it is about 11 metres. This figure has some close analogies with Buddhist Art in other Buddhist countries (Ceylon).

The architecture of Ajina-tepe monastery has some special features connected with local Bactrian traditions. This shows that it was built by local followers of Buddhism who had introduced the new elements in traditional Buddhist architecture. The influence of Buddhist Art is self-evident, yet the masters of Tukharistan did not blindly follow the canon. The excavations of Ajina-tepe have graphically revealed the amazing tenacity of the local traditions and the originality of the schools of architecture and art of ancient Bactria-Tukharistan.

The excavations in Ajina-tepe has a great scientific interest. They are very important not only for the study of Buddhism in Central Asia and its features there but also for the investigation of ancient local art in this part of Central Asia. The archaeological investigations in Ajina-tepe were carried by the expedition of Tadjik Academy of Sciences under the guidance of Dr. B. Litvinsky.

We can say now about two main periods in the history of Buddhism in Central Asia. The first is the initial period connected with the spread of Buddhism from India during the Kushān epoch. It is possible to trace the close contacts local Buddhist of Central Asia with Buddhist culture of India.

The next second period is connected with the period prior to Arab invasion (7th-8th century A.D.). Some regions were continuing the old local traditions and ties with Indian Buddhists.

These important discoveries of Soviet archaeologists show that Buddhism and Buddhist culture had played a considerable role in the historical and cultural development of Central Asia for a long time. The influence of Buddhist Art is self-evident. Yet the masters of Tukharistan did not blindly follow the canon. The excavations of Ajina-tepe have graphically revealed the amazing tenacity of the local traditions and the originality of the school of architecture and art of ancient Bactria—Tukharistan.

Central Asia played an important role in the dissemination of Buddhism in the Far East. There were many monks from Central Asia in China in the first centuries A.D. who translated and annotated Buddhist texts, actually introducing Buddhism to the Chinese. The sojourn of many monks from Central Asia in the countries of the Far East—monks engaged in translation of Buddhist texts testifies to the widespread influence of Buddhism in Central Asia.

Arriving to Central Asia from India, many elements of culture were considerably modified here through the impact of local traditions and advanced further—to China, Korea and Japan—in a novel form.

The Soviet scholars carry on their research work on Buddhism and there is no doubt that they will yet present new interesting works on the history and culture of Buddhism.

HAGARGUNDGI: A FOSSILIFEROUS MIDDLE STONE AGE SITE ON THE BHIMA RIVER

K. PADDAYYA

INTRODUCTION

The village of Hagargundgi is situated on the left bank of the Bhima river, and lies about 13 miles south-west of the district town of Gulbarga in Mysore State. The occurrence hereabouts of Pleistocene gravel deposits had been noted by Foote (1876-240-1) and Mahadevan (1947:55). In the course of a systematic investigation of the archaeological remains of the area, the author discovered a stratified Middle Stone Age site at this place in February 1968. The most significant feature of this site relates to the occurrence of animal fossils in association with the stone artefacts.

Shales of the Bhima Series and Deccan Trap are the two chief geological formations exposed in this area. The course of the river here is characterized by many sinuous curves, and the present site is located at the head of one such meander.

STRATIGRAPHY

The section (Pl. I, No. 1) exposed on the bank of the river lies about half-a-mile downstream of the village. It shows a maximum height of about 25 feet, and laterally extends for over a furlong.

The basal stratum consists of shale rock showing little or no traces of weathering. Resting over this bed rock is a sandy pebbly gravel deposit. This sediment occurs as a lenticular body, and varies from 5 to 8 feet in thickness. It is composed mainly of Trap-derived pebbles of chaledony, the minor components being pebbles of chert, agate, jasper and quartz. These pebbles range up to 3 inches along the major axis, and are sub-angular to sub-rounded. They are set in a matrix of clay, silt and sand and fully cemented by calcium carbonate. Cross-bedding is discernible at some places. It yielded a fairly good number of animal fossils along with artefacts typologically which seem to be of the Middle Stone Age industry.

The gravel deposit described above is disconformably overlain by a 15 feet thick deposit of yellow brown silt. It is sandy in composition, and is traversed by several horizontal bands (varying from 1 to 2 inches in thickness) of *kankar*. It is free of both animal fossils and stone artefacts. The section is finally capped by a 2 feet thick accumulation of black brown silt.

The opposite, or right bank of the river is composed exclusively of black brown silt, and measures about 20 feet in height.

At Saradgi village, lying about a mile downstream from the cliff-section and about a furlong away from the bank of the river, the yellow brown silt was found to rise to a height of about 45 feet from the river bed. The sediment thus forms a distinct terrace, and the village itself is located over it. A lower terrace, measuring about 25 feet in height and consisting of black brown silt, rests against it. It is thus possible to visualize two distinct river terraces in this area.

ANIMAL FOSSILS

Of the three deposits, it is only the gravel conglomerate which had produced stone artefacts along with animal fossils.



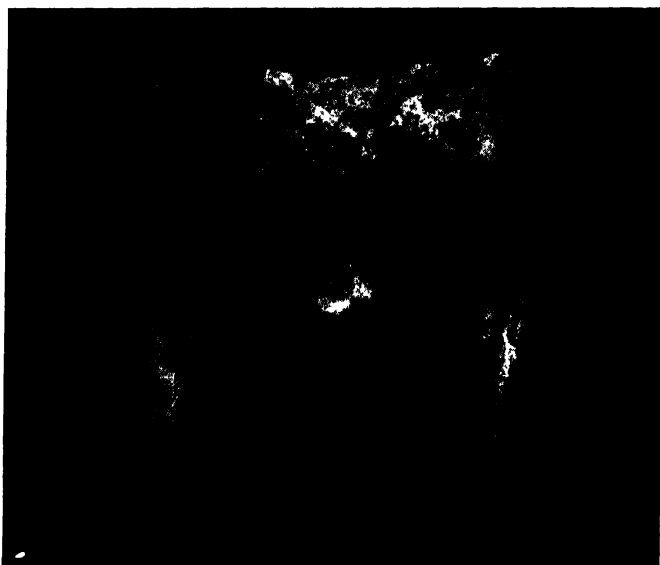
No. 1. Cliff-section at Hagargundgi on the left bank of the Bhima river.



No. 2. Jaw fragment of *Bos* (possibly *namadicus* Falc.).



No. 1. Antler fragment of some yet unidentified species of the Cervidae family.



No. 2. Shoulder-blade, portions of leg and rib bones of *Bos*.



No. 1. Part of the pelvis of *Boy* found *in situ* in the gravel conglomerate.



No. 2. Same as above (after extraction).

As for the fossils, a collection of 17 loose specimens was made on the eroded surface of the gravel. These include: one jaw fragment (Pl. I, No. 2), one antler piece (Pl. II, No. 1), one complete shoulder blade and portions of leg and rib bones (Pl. II, No. 2). Furthermore, a nearly complete example of what appears to be pelvis was found *in situ* and chiselled out from the same deposit (Pl. III, Nos. 1 and 2). All the specimens are almost thoroughly mineralized, but show little or no traces of rolling.

During his visit to Deccan College, Poona, in April 1969, Dr. E. Khan of the Aligarh Muslim University opined that the pelvic bone is of the *Elephas*, while the antler fragment belongs to some species of the Cervidae family. The remaining examples, including the jaw fragment, belong to the *Bos* (possibly *namadicus* Falc.).

THE LITHIC INDUSTRY

The collection is comprised of 181 specimens in all. Of these, 43 were obtained *in situ* and the rest collected as loose finds. About 80 per cent of the artefacts are of chalcedony, and the remaining ones are made variously on chert, agate and jasper. Traces of rolling are highly negligible, thereby suggesting that the artefacts did not undergo any long-distance transportation. Sixty-five per cent of the specimens have their surfaces coloured by a brownish stain.

Plain flaking (Clacton-like), prepared core, pyramidal core and fluted core techniques of primary flaking are observable in the assemblage. The blanks, respectively called plain flakes, prepared flakes, flake-blades and blades, obtained by these techniques were subjected to secondary working and fashioned into regular tool forms. About 50 per cent of the finished tools are made on plain and prepared flakes; hence the assemblage deserves to be classified under the 'flaketool' group. Nodules are also used, though occasionally, for manufacturing tools. The proportion of finished tools to simple artefacts is 66 (27%) against 115 (73%). The list of artefact types met with in the assemblage is as under:

- | | | |
|--------------------|----|--|
| 1. Scrapers | 46 | These are of 6 sub-types; straight edge (17); concave edge (3); notched edge (10); convex edge (4); transverse edge (6); macrolunates (2); and all round edge (4). |
| 2. Points | 11 | Eight are of the simple type bearing retouch along the margins, and the remaining 3 are bifacially worked. |
| 3. Borers | 8 | The beak-shaped working ends of these specimens are obtained by notching back the margins of the blank selected for working. |
| 4. Multiple tool | 1 | It is a scraper-cum-borer. |
| 5. Cores | 15 | Eleven are of the Plain type, two of the Pyramidal type and the last two of the Fluted type. |
| 6. Plain flakes | 16 | Five specimens bear use-marks along the margins. |
| 7. Prepared flakes | 13 | Five specimens show use-marks. |
| 8. Flake-blades | 7 | Two of them with use-marks. |
| 9. Blades | 2 | Both the examples bear use-marks. |
| 10. Rejects | 62 | They comprise chips, flakelets and nondescript pieces, all forming the debris of working. |

Technologically and typologically, the assemblage thus compares favourably with the flake-tool assemblages of the Middle Stone Age found in other parts of the country. Its closest similarities, however, are with those reported from Maharashtra. The utilization of siliceous minerals as raw material and, consequent upon that, the relative smallness in the size of the artefacts are features common to both the regions.

CONCLUSION

The importance of the present site centres round the occurrence of animal fossils. So far, the finding of fossil remains of mammalian fauna has been mostly confined to central India (De Terra and Paterson 1939) and northern Deccan (Sankalia 1956; Joshi *et al.* 1966; Rajaguru 1968). Alluvial deposits yielding artefacts of the Early and Middle Stone Age industries together with the remains of faunal species like the *Bos namadicus*, *Elephas namadicus* and *hysudricus*, *Equus namadicus*, *Hexaprotodon namadicus*, *Bubalus palaeindicus*, etc. are known from several localities on the Narmada, Upper Bhima, Godavari, Pravara and other rivers. Very recently remains of *Bos* and *Elephas* have also been found in the Belan river in Uttar Pradesh (Sharma 1968). But South India presents a different picture in this regard. Numerous sites of both the Early and Middle Stone Ages have been located in Andhra Pradesh, Mysore and Madras. Surprisingly enough, none of them has preserved any animal fossils. Even the examples of rhinoceros and *Bos* reported by Foote (1876:232-3) from the Ghataprabha basin come from non-implementiferous gravels. Hence the site of Hagargundi may be regarded as an important Palaeolithic station in this part of the country which has animal fossils in a clear-cut stratigraphical context. Systematic investigations in various river valleys of the region are bound to bring to light many more sites of this kind.

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ROCK SCULPTURES IN BIHAR

ADRI BANERJI

There is a fundamental unity underlying the 'Culture' of Bihar; notwithstanding the diversity of climate, terrain, flora and fauna. The oldest geological formations are met in Chota Nagpur, even now abounding in megalithic remains. While the plains of Saharsa, Purnea, Darbhanga and Champaran turn into a 'green hall' during monsoon. The Ganges, the ogress Kosi and Gandak etc., feed its fertile valleys; while the blue massifs of Rajmahal and Munghyr hills stand in silent protest against the verdure of the plains. In such an area with the bounteous nature successfully attempting to meet their every need—the inhabitants were bound to be worshippers of beauty. Their aesthetic conception, perception and execution were of a high order, but like Sung paintings of China, in its classic phase, had spiritual and intellectual qualities.

If the *beaux-arts* of the west was concerned in representing the phenomena of this materialistic world, as the artists inner 'Vision' perceived, the art of Bihar—the Eastern Indian School, was quasi religious or mystical. Mysticism originated in man's need to adapt himself with nature and assimilate the environment—the 'geographical incident' of Plekhanov. Because of the dynamic relationship between man and environment, he created art to coordinate his various, sometimes contradictory, impulses. With the progress in social integration, there is a simultaneous progress in plastic expression and organization, now serving the church to bring about a moral tone, uplifting the individual and establish a disciplined living by fear complex, of vice and sin. It was thus a highly subjective art, dealing with the world of appearances. It was indeed laid down in the canon that the artists should work in trance and rapidly too. There was little opportunity of colour in such works, they were superb monochromes in blue schist of Rajmahal or buff laterite of Santal Parganas.

There were other varieties of rocks available. The prevailing notion that Eastern Indian school only worked in blue or black stones from Rajmahal is not borne out by facts. There are Gondawana and Dharwar formations in Chota-Nagpur; Satpura and Cuddapah, Bengal gneiss and granite of Gaya and Kaimur in Sahabad. The ancient craftsmen of Bihar not only took full advantage of this wealth of material but left evidence of various facets of their activities. They were not content by merely producing stela, *basso-relievos*; but utilised rocks, to leave evidence of their quasi-religious plastic activity. India abounds in rocks but very few regions have left such examples.¹ Wherever it was convenient, they established open air chapels of worship, not girt by any cuirass of stone or bricks, for all classes of men and women, by carving the anthropomorphic images of the gods. Mere symbols.

Rock carvings or graffitis are of hoary antiquity in Bihar—deep rooted in its religious practice, whose origins has yet to be established, from the tangled skein, that is its prehistoric past. It evolved with the progress of religious institutions as integrated with social practice. Whether the hunters and fruit gatherers who moved in the primeval forests, 50,000 years ago, had a religion or not is a moot point. What faith he followed and what gods he appealed when the mammoths, the unknown *terra-firma*, unexplained

¹ To be elucidated later on.

phenomena of nature frightened him, is not accurately known. Fear complex was the supreme psychological factor in those by-gone ages. The hunters were gradually transformed into shepherds and agriculturists in Neolithic times. To this age of great strides, have been ascribed, the graffiti of Maubhandar, near Ghāṭsilā, in Singhbhum district. But the dating by late Dr. P. Mitra is subjective. Simply because some artefacts were found at the place, it does not follow that the graffiti were made in that age. The horizon of the neolithic and mesolithic peoples were greater than that of their palaeolithic predecessors. Their rituals and practices were based on their economy.

The extensive sacrifices resorted to in Vedic times shows the unlimited resources. It was their media of barter. In course of time the religion became more and more affiliated to the equinoxes and heavenly bodies. With the evolution of ancient Indian society and its immense 'Culture complex,' many ideas, cults and philosophies alien to Vedic thought were absorbed along with rock carvings with new values, interpretations, scope and purpose.

The Eastern Indian School of sculpture was *chef d'oeuvre* of Indian art; and these rock carvings are a special feature of this school, not shared by many regional schools. They have been neglected, because, the pioneers regarded them as primitives. Sometimes they are true reliefs, though minute in size, while others are on colossal scale. Both are distinguished by refined expressions, graceful poses and exquisite forms. If some of them like the so-called—Kṛiṣṇa-lilā scene at Pātharghāṭṭā or Vaṭeśvara hill also in the Bhagalpur district, appear to be crude, allowances have to be made for the drawbacks of the individual artists as well as disparity in age. While extreme austerity of many, tends to obscure the personal element of the artists, in the dispassionate depiction of the super personalities; the humanity in others, like the 'lying woman' of Baiskaran at Sultanganj, in the same district is touching. If the aesthetic in some like the Ekapāda is cold; in others like Śiva and Pārvati it is pulsating. The ineffable charm of the eyes, effaced by almost a millenium's exposure, convey unfathomable majesty. The pose with a swing at the waist, known as *tribhaṅga*, though somewhat conventional, is suggestive of lively movement of forms, which from their very conception was bound to be static and earth bound.

Due to location and nature of material, they lacked adventitious aids and atmosphere. Decorative enrichment, which could have led to the irridiscent treatment of the background is absent. But the warm treatment of forms is significant. If they had been paintings they could have glowed with light and lustre, the tonalities enlivened by accents of various colours. But devoid of all these the artist had to overcome hard facts. These were grey flatness of granite boulders amidst vast space, the bright sunshine, the blue dome above and the effect he could produce within this steel frame. It was the highest sanctification of the aesthetic perception of the race, nation and the society

No doubt the art was formal and symbolical. Nevertheless the clarity, the boldness of perception and a clever adaptability is also evident. There is no attempt at complex modelling. Sharp contrasts of planes and rounded forms establish the facts. The *tour de force*, is the passion engendered by *bhakti*, applying a charm to the simple figures, delicate in execution, notwithstanding precision and fluidity. The "*Ananta-Śāyin*" Nārāyaṇa at Jāhāṅgirā is probably one of the best examples of Gupta art.

In the soft alluring and rounded female forms with thin waists and full small breasts we find the continuation of the plastic traditions of Sanchi, Sarnath, Mathura, Mahavalipura and Ellora. Voluptuous to a degree, they possess monumental and sculpturesque qualities. There is a strange warmth,



Fig. 1. General view of Aj-Gaibmatha or Jahangira surrounded by the waters of Ganges in monsoon. Each temple contains a fine rock sculpture. Sultanganj, Bhagalpur district.

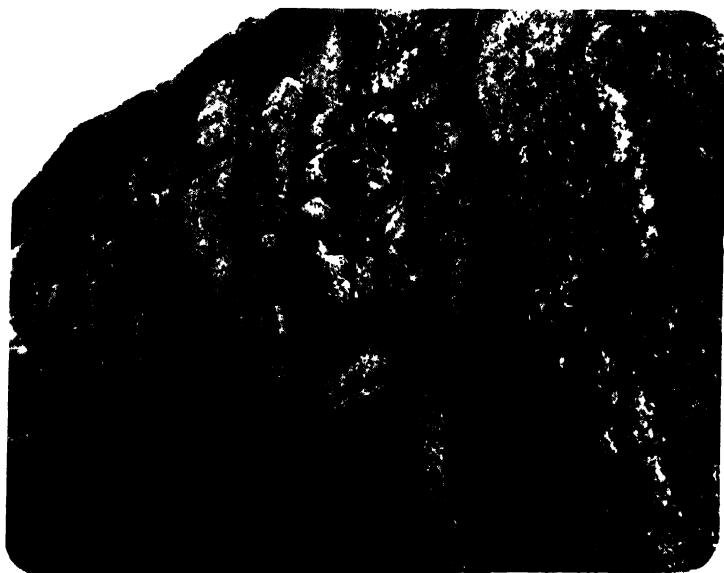


Fig. 2. Nārāyaṇa on Garuda and other sculptures. Jahangira or Aj-Gaibmatha Sultanganj, Bhagalpur district.

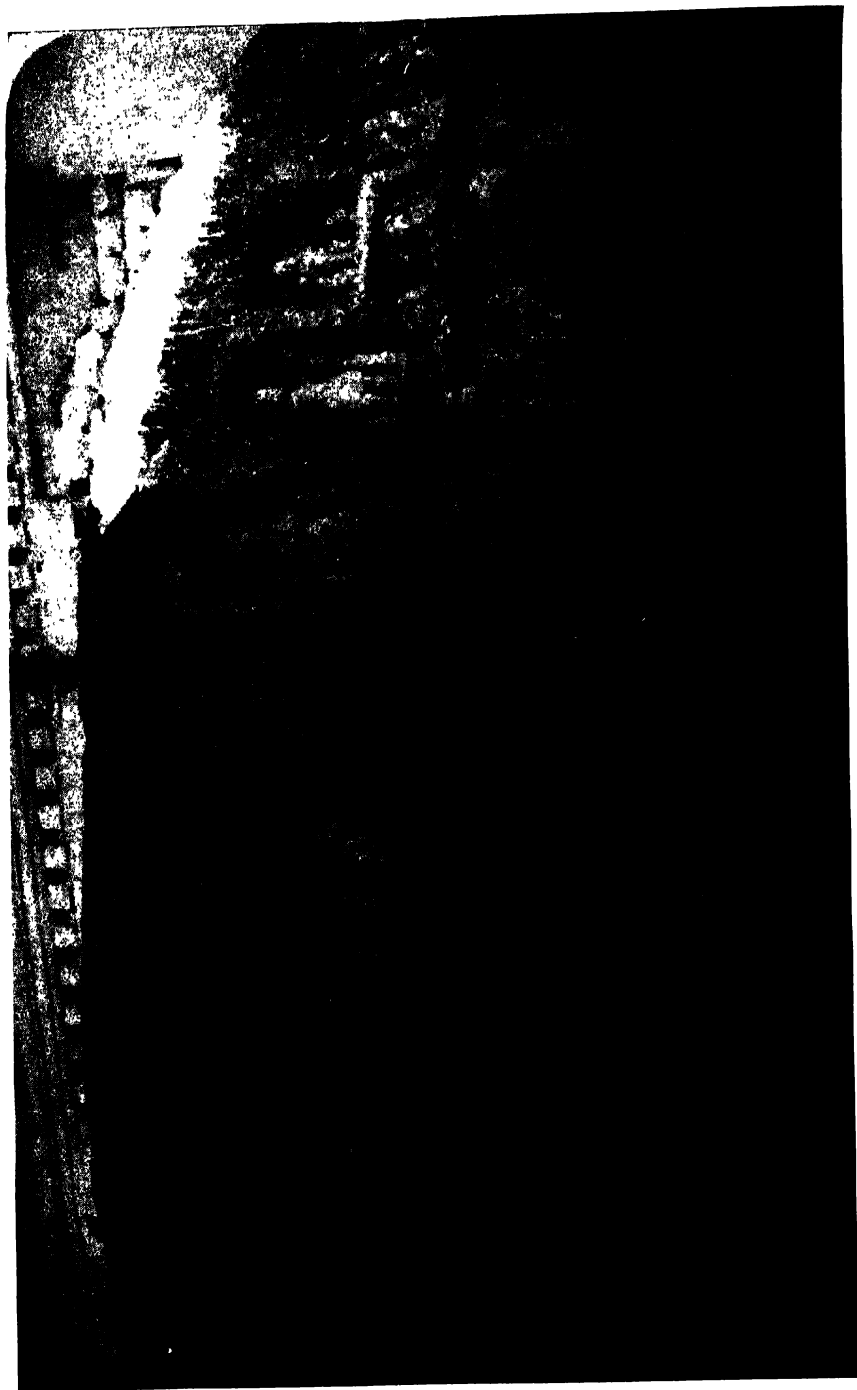


Fig 3 Krisnalik scenes and other images Jahangira or Ji-Gaibinatha, Sultanqani, Bhagalpur district.



Fig. 4. The modern mosque on top of Baiskaran with the debris of earlier edifices superimposed over
Hindu remains, Sultanganj, Bhagalpur district.

ROCK SCULPTURES IN BIHARI



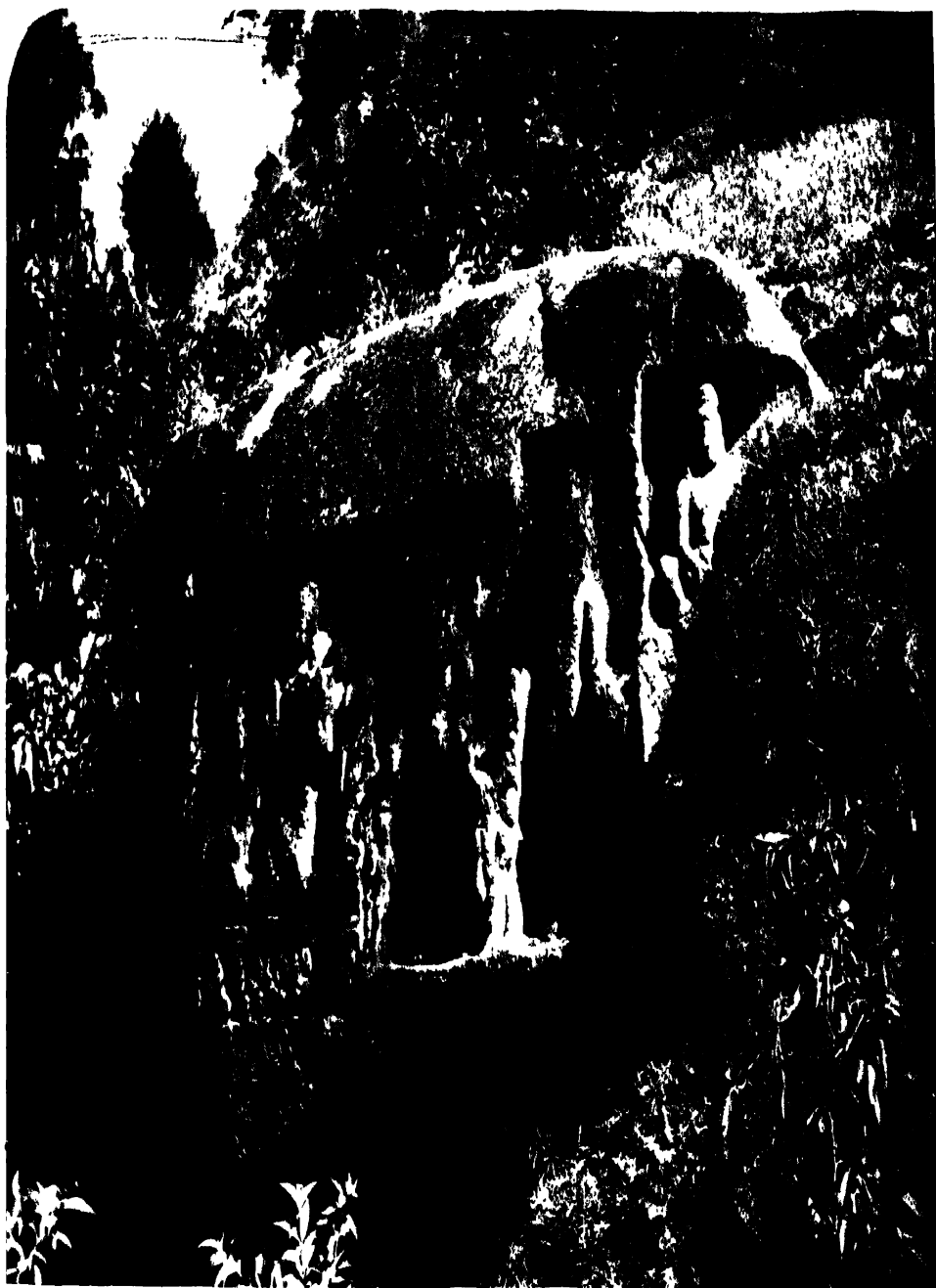


Fig. 6. Surya on his chariot with Danda and Pingals etc. Two other divinities and head of the third peeping out of the debris. Baiskaran, Sultanganj, Bhagalpur district.

ROCK SCULPTURES IN BIHAR]



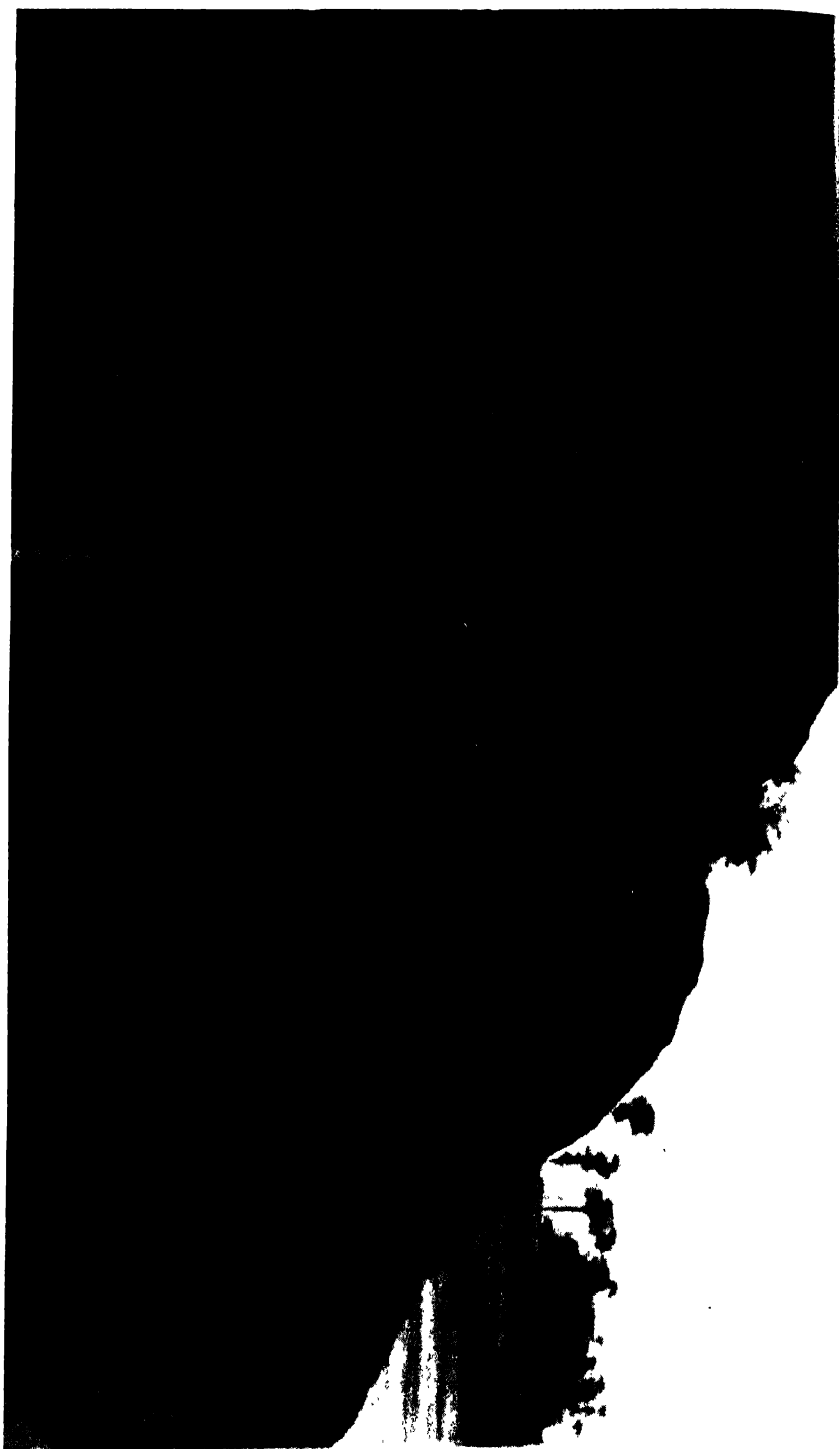


Fig. 8. Surya with the head and torso of another. Below Devī, Viṣṇu on Garuḍa, Ekapāda and four armed Mahiṣasuramardini.
[ROCK SCULPTURES IN BIHAR]
Baiskaran, Sultanganj, Bhagalpur district.



arising out of fullness of forms, softened by rounded contours, delicate nuances and plain flat background. This orchestration no doubt creates a captivating sight; yet, the heaviness of forms indicate a late date. The effect attempted was not a gorgeous scene, as in a temple or cave, but a simple, peaceful and serene majesty in grey and buff. This art of rock carving still survives in Bihar as we find from the images of monkey god, Hanuman on the boulders on the bank of the Ganges at Pātharghāṭṭā. The cult of Hanuman was introduced by Tulsidāsa. At Baiskaran, near Sultanganj, the cults are: Saivism, Vaiṣṇavism and Saura. Buddhist and Jaina figures are met with at the foot of Kawa Dol in Gaya district.

Our purpose to-day is to discuss the reliefs of Baiskaran—a promontory of Sultanganj (25° 15' N and 86° 45' E). It is a railway station between Bhagalpur and Jamalpur. The other great rock is Jāhāngirā or Aj-Ghaibinātha, whose sculptures have been irretrievably lost due to erection of temples over them. The transformation of Jahangira into an island seems to have taken place late in 1670 A.D. Because when John Marshall visited it, Ganges flew to the north of it, but when late in that year de Graaf visited the place it was already an Island (Fig. 1). Sultanganj has a hoary antiquity. In 1959, cleansing of an well brought a gold *reponssé* work of 1st Century A.D., few Gupta coins and Neo-Black polished pottery. There is the remains of a huge monastery near the station which has been described by Rājā Rājendra-lal Mitter.² The famous Sultanganj image of Buddha (C. 400 A.D.), now in the Birmingham Museum was found here.³ Near the Dak Bungalow, there is another square mound, locally called Karangarh whose moat is now being cultivated as rice fields. Francis Buchanan (1810-11) found walls etc., which were pulled down by Col. J. Hutchison to make an indigo factory. The buildings are now occupied by some Zamindars. But excavation here is likely to yield a rich harvest.

The rocky promontory of Baiskaran has now a modern mosque with an inscription of Shāh-jhān, and some dilapidated tombs. The alignments of the old mosque possibly ruined by the invasion of Peshawa in 1743 A.D., can easily be traced. Below this lies the decomposed brick ruins of a Pre-Muslim structures (Fig. 4). From this place a goatpath leads to the bank of the Ganges, strewn with boulders which have been utilized by the pious. Most beautiful of these is Śiva and Pārvati; and the 'lying lady,' the last has been very defaced by the waters of the Ganges.

PART II

The rock carvings or rock sculptures have a wide diffusion not merely in India, but African and Asian continents. Be that as it may be, here we must confine ourselves to the phenomenon in the Indian subcontinent. At a conservative estimate, they occur in Nefā, Nagaland, Assam, West Bengal (Suṣūniā), Bihar, Orissa, Andhra, Mahārāṣṭra, Madhya Pradeśa etc. But Bihar enjoys an unique merit in quality and quantity than the other states; though they lack the gigantic planning like those of Kārle, Ajantā, Ellorā etc., where millions of tonnes of virgin amygdaloidal trap were removed to create a magnificent symphony of architectural practice, combined with that of sculpture and painting. In Orissa and Madhya Pradeśa, the rock sculptures hewn out of primeval upheavals represent the sanction of one or the other great relegions.⁴ But, in the state of Bihar, possibly originating

² *JASB*, Vol. 33, (1864), Pt. I, p. 360 ff.

³ A. K. Coomaraswamy—*History of Art in India and Indonesia*, Pl XLI.

⁴ Such as Jaina at Gwalior Fort.

from graffitis, such as we find in Singhbhum etc., they are generally found near great monastic establishments for example in the hill tracts Gaya and Hazaribag districts, near temples as open air places of ritual and devotion. A proper recording of all these washed by rain and storms of milleniums along with air denudation will require tomes. My intention is to draw the attention of scholars to this singular survivals of the devotional movement in Bhagalpur district, containing the ruins of two monasteries with modern buildings and a site like Sultanganj which has supplied the famous metal image of Buddha now in the Birmingham Museum. Their, composition, iconography and plastic qualities; many of which are of great distinction have been lost to the intellectual world due to erection of modern temples by blind religiosity, as already stated.

Nārāyaṇa seated on Garuḍa (Fig. 2) and a standing divinity carved on a colossal scale are reminiscent of the style of the Kṛṣṇa-līlā scenes on Baṭeśvara hill or Pātharghāta, near Kāhālgāon (sic. Colgong), surrounded by the deserted ruins of Vikramaśīlā monastery, located near a famous ferry across the Ganges. Here the volume and mass is a delusion possibly due to the inferior skill of the stone cutter or the grains of the rock.

Next we have multitude of images, either in well defined niches or on the rock surface (Fig. 3). That on the upper register, on the extreme left, is possibly Kṛṣṇa lifting Mt. Govardhana. The standing figure at the centre within a circular arched compartment is Harihara, easily recognizable by the trident on left and the wheel on the right. Immediately below him is Vighnāntaka or the Ganeśa. There is cylindrical *lingam* on the extreme right top corner.

From Aj Gaibīnātha we have to retrace our steps to the promontory now known as Baiskaran, in the neighbourhood of the water works, on whose top, as already pointed out, there is a modern mosque built over the ruins of an earlier one, below which are Pre Islamic ruins (Fig. 4). Here we have figures of female divinities, weathered a great deal, in separate niches (Fig. 5). By the side of which we have a couple showing a male caressing a female—probably Śiva and Umā.

Next comes another panel, in which we find a divinity not visible in the photograph, and Surya on his chariot drawn by seven horses and Daṇḍa and Piṅgala on either side, followed by two other standing images wearing *kaṇḍa-mukuta*. The boulder on which they were carved had other figures but now covered with the fallen debris of the mound. Only a seated image wearing a *jaṭā*, as opposed to *jaṭā-mukuta* is peeping out of its underserving burial, on the extreme right.

On another boulder, on extreme left, in a rectangular niche, Śiva and Pārvaṭi is possibly depicted with an worshipper in a semicircular compartment below. To the extreme right, we have Trivikrama (Fig. 7). On another boulder, damaged at that; also we have the head and torso of Sūrya, easily recognizable by the lotuses on either side (Fig. 8). On this cracked boulder we have other images, commencing from the left within rectangular or niches with crescentic curved top: Devī, Viṣṇu on Garuḍa, Ekapāda, four armed Mahiṣāsura-mardīnī and a head with big *jaṭā*.

The technique of carving is not difficult to define. Fortunately on the bank of the Ganges, we have, on a fallen boulder series of grooves in a straight line (Fig. 9). Evidently, the stone masons first drilled (?) holes with a point or pointed chisel for insertion of wooden plugs on which water was thrown. The wet wood split the stone when they expanded. Then with flat chisels of various sizes they cut the niches to a lower level, leaving at the centre virgin piece which ultimately took the form and shape of the desired divinity. All its sides having been scooped out to make the motif stand

prominently, bathed by the rays of the tropical Sun, while the background with its lower level were in shade. That is the pictorial compositions, and their organization possessed wider range or latitude for chiaroscuro, and greater scope for transparent half tones between the shadowed and the well lighted areas. At Sarnath, before my eyes two copies of the famous 'Preaching Buddha' were made in stone by the Benares stone cutters, and I noticed that they seldom used tools like gouge, points etc., but, only flat chisels of various sizes. Very wide flat chisels being used to give final touches and to scrape the surface smooth to obliterate marks of previous cuttings.

CONCLUSIONS

Any cursory survey establishes the fact, that these ancient bathing ghāṭs, with boulders strewn over the banks of the Ganges, uplifted above the surface of the soil, by some seismic disturbance or disturbances, became a veritable crucibles of sects and dogmas of Brahminical religion from a date that is to be determined later. Saura, Śaiva, Vaiṣṇava devotees had the images of their divinities carved on them for worship and ritual, after bathing in the Ganges. The part the Ganges played in it is of indeterminate quality. Because, in Singhbhum, Munghyr, Gaya and Hazaribag districts there was no Ganges; but, rock carvings are there. They have already been noticed by Carlyle, Beglar and Cunningham, and need not detain us here. Bihar with its various classes of hills and rocks as already stated, offered the opportunity to the pious, and they never hesitated in taking advantage of them; thereby leaving a rich heritage of varied plastic activity not found in many Indian states. To day we might endow them with rich imagination, vision etc., but they might not have practiced it with any such objective, the mainspring being piety. Inadvertently, possibly they enriched the history of plastic activity of the people which is 'folk practice' and 'Folk art' as we shall presently see. And, the cause is not far to seek. Sultanganj with its two huge mounds and ancient remains found in the heart of the modern village can not and did not compete favourably with the resources of its neighbours: celebrated cities of ancient Magadha—Champā (sic. Bhagalpur) Mudgagiri or Munghyr, Kajaigala, or the ancient monastic establishment at Lakhsarai now deluviated by the Ganges. They, like the images and monuments in the hill tracts of Akbarabad relied on rural craftsmen.

These rock carvings or sculptures, have a monumentality expressing mightier mystic ideas in terms of minute forms with sombre undertones. They symbolise an effort at psychological penetration, belonging to an organic style, deep rooted in folk tradition and practice. These sculptures were not in any way affianced with architecture or design. That is they were not applied sculpture created to buttress any preconceived structural design. The creators never claimed, nor they have been accepted by the posterity, as the very acme of rock cut sculptures, architectural practice or paintings. The forms are mature, bold and isolated. No *śikhara*s, or ambulatory surmounted or surrounded these, except in modern times. There were no provisions for giving them protection against the vagaries of weather or air denudation. Yet, they do represent a landmark, in the history of national plastic activity, in ancient and mediæval times, seldom recognized by Indian art historians or critics. They lack the overwhelming exuberance of accompanying decorative ornaments. But, mere panels or individual compartments, even when long Kṛṣṇalīlā scenes were carved. They truly represent the rural stone cutters art, not at the command of devoted royalty, rich plutocrats, or monastic orders, but inspired by the individual

householders or pilgrims, ambitious to earn divine grace, involuntarily heralding the dawn of Hindu baroque. Some of them as we shall presently see vibrate with dynamic energy and movement expressed by static plastic forms. The whole rock face of Jāhāngirā or Baiskaran notwithstanding quality, is not sculptresque.

Lacking an ornate atmosphere the island rock and the promontory contain series of sculptured forms, religious in character and offertory in object depicting, scenes from the epic and *paurāṇic* mythologies, epitomising the cosmic nature of divinities. The panel exhibiting Śiva caressing Umā or Devi nostalgically reminds us of the best traditions of Ajantā and Ellorā. The graceful voluptuous bodies distinguished by crude heaviness, a Pratihāra heritage (?); instead of hanging in space, like the products of the Vārānasi school, pure and simple in outline, are remarkable for linear rhythm. They have the identical supreme elegance, the same elongated bodies. Along with a delicate poise and balance in repose they betray a Botticellian grace, and like the works of Giotto possess heavy forms unthinkable in Cimabue. The composition depicting Viṣṇu-Nārāyaṇa, riding on Garuḍa, for love of mass and height, notwithstanding the damage by weathering, is reminiscent of the huge frieze represented on the rock face of Pātharghātā in the district of Bhagalpur. Significantly enough, this is also on an isolated rock on the banks of the Ganges. Both of them may not be far in date, that is c. 500-600 A.D. The image of Trivikrama is suggestive of the fact, that the art was creative and imaginative but not unbridled, rather abstract than naturalistic. The carefully controlled movements successfully convey the primordial power and superhuman energy; but more than that, divine wrath and displeasure. The upward fling of the leg powerfully poised, in all likelihood would have ended in energetic and violent movement, but the theme and spirit of the mythology compelled it to be static, but by no means earth-bound, inert and lifeless. It betrays, that neither ritualistic, nor the traditional character of the artistic practice, succeeded in preventing the free impulse to create, notwithstanding the inferiority of the individual worker and limitations of space and finance. They lack majesty and pride of display of wealth and power; and have great sociological values for the race, nation and the society, catering to a populace who were not sophisticated like urban upstarts.

The area was strategic. It was a part of ancient Aṅga; that celebrated corridor which since Proto-historic times gave access to all the conquering armies from the Upper Ganges valley to the deltaic region, North Bengal and the Bramhaputra valley; who wanted to by pass the tangled mass of hills and jungles of the Kajāṅga country, now known as the Santal Parganas, or the green morass of the Kamalā and Kośī, now represented by the Saharsa and Purnea districts. The Māgadhans through centuries of practice, and because of the absorption of influences both from Vārānasi and the East, had developed a noble and dignified plastic activity since the dawn of history. As manufacturers of stone statues, bronze images and creators of a virile school of painting, they were able to explain with the help of symbolism of forms and colours, most abstruse representations of mystic and metaphysical truths.

From the palmy days of Pāṭaliputra school, aided by the quarries of Chunar and Rājmaḥal, they had practiced architecture and plastic activity, in stone, stucco and clay for the organic art at the behest of the court and the Churches affiliated to the various creeds and sects. Nonetheless, a humbler activity with a wealth of social values also existed simultaneously, which first came into prominence in the Śuṅga period. This seems to have been submerged in a spate of official and religious endowments, but survived in

humbler walks of life as toys and icons for homes with limited budgets, as the excavations at Mathurā, Bhiṭā, Kośām, Rājghaṭ, Chirānd, Basārḥ, Kumrāhār and Rājgir show. A folk art deep rooted in the aesthetics of the people, not demoralised by the materialism of Karl Marx and the industrial civilization of Europe, claiming only to be poor but without any effort to stave off the wolves from their doors.

It may be questioned, whether these rock sculptures, belonging as they do to the long period between c. 500 A.D. to 1200 A.D., can justifiably claim affiliation with Folk practice, when from sixth century onwards we have data to infer that they were adopted into the official art for the enrichment of temples and monasteries. For example folk themes on Pāhārpur, Temple, Site no. 2 at Nalanda etc. The first noteworthy instance of its simultaneous co-existence as pointed out by late C. L. Fabri is found on the walls of the *garbhagriha* of Temple no. 12 at Nalanda. The second are the rock sculptures in Hazaribagh, Gaya, Sultanganj and Baṭeśvara hill in the Bhagalpur district. There is however one piece below the flood level at Baiskaran, of a lady lying with a child which has never been photographed belongs to c. 500 A.D.

What is needed now is a census, of these rock sculptures, their dates and themes, in order to make the annals of our plastic activity comprehensive and complete. Because their social values are undoubted. But, after General Cunningham and his Assistants, few have taken up these subjects. My main object in writing these pages was to moot the subject.

A STATISTICAL ANALYSIS OF SOME MEGALITHIC BURIAL PATTERNS IN MEDAK DISTRICT, ANDHRA PRADESH

URMILA PINGLE

(Communicated by DR. S. K. MITRA)

The main bulk of South Indian megaliths lie south of the Godavari system. Their extensiveness and peculiarity are still in fact "the jungle of a problem". A statistical analysis of the megalithic burial pattern may be helpful, though it is not without risk.

The systematic work carried out since the last two decades has revealed a fairly definite and coherent trends in cases of dolmens and cromlechs whose functions seem to be associated with the burial rites. It is still difficult to find a satisfactory functional role for the menhir or standing stones. They may indicate a commemorative function or they can be associated with the burial rites, as it is still the practice of the Bastar Gonds and the Khasis and Nagas of Assam. The megaliths of South India are supposed to be different in origin from the megaliths of North-east India. The observation of Christopher von Furer Haimendorf was that Austro-Asiatic immigrants introduced megalithic culture with neolithic association in the region of north-eastern India. It is sustained by the fact that there is general difference in type and concept from the South-Indian megaliths, which have an Iron Age equipment and western analogies. Their most notable integral connexion with the West is the port-hole entrance which has an intimate connexion with the burial rites. One main difference is that in Europe the megalithic tombs were used successively for a longer or shorter period and were normally collective burials. But the South-Indian megalithic tombs were probably restricted to a family as the evidence shows, with few exceptions, the number of bodies or their fragments much smaller and there is no evidence of the successive use of the same grave. To avoid disturbing the grave, the bones of the different individuals were excavated elsewhere and they had all been "introduced at the same moment like a bundle of faggots".

This is a preliminary report of the four megalithic grave sites, three of which, Site I, Site II and Site III, are in Mandapalli in Medak District and the fourth is in Nustulapur near Karimnagar.

Nustulapur Site IV:

It is situated 20 miles from Siddipet near Karimnagar. These graves are of different culture from the Mandapalli burial sites I, II and III. They consist of low circular mounds of small granite boulders and are not marked by a stone circle or circles. The sand mound of the biggest grave takes shelter under a huge and flat granite slab standing up obliquely.

MEASUREMENTS OF THIS GRAVE

Diameter of sand mound	=	15.30 metres
Height of sand mound	=	1.45 metres

MEASUREMENTS OF ERECT STONE SLAB

Thickness:	At the top	=	0.26 metres
	At the base	=	0.5 metres
Breadth:	At the top	=	0.38 metres
	At the base	=	1.40 metres
Length:		=	3.6 metres.

The bearing from the centre of the sand mound to the centre of the erect stone slab is exactly north.

The rest of the graves which are 34 in number have the capstone in the horizontal position over the centre of the mound.

The grave-to-grave distances and bearings of 35 graves in this site were measured and are illustrated in the map.

Mandapalli Sites I, II and III:

LOCATION: These three sites are present on ridges at a height of 50 feet, separated from each other by a distance of a mile. They are situated in Mandapalli which is four miles from Siddipet in Medak District at a longitude of 78°55' and a latitude of 18°10'. The intervening low land is free from burials. The situation of graves on high ridges is a characteristic of the "megalithic culture". It may have been associated with some ritual of that culture or possibly that the graves on high ridges are not easily washed off by rainfall as they would if situated on lower grounds.

DESCRIPTION: They fall into the category of cist circles. From the disturbed cist tombs which have been dug by the local villagers, it was observed that the graves consisted of large granite slabs in the form of a rectangular box, with the presence of a port-hole. One end of each slab is overlapping the other end of its proximal slab. These graves are marked by a single stone circle. Wheel-made black and red pottery along with small iron pieces was found in these disturbed graves.

MEASUREMENTS OF A DISTURBED GRAVE

<i>Of stone box</i>			
	Length	=	1.50 metre
	Breadth	=	0.75 metre
	Thickness of each wall	=	30 centimetres
	Depth	=	1.60 metre
<i>Of stone lid</i>			
	Breadth	=	1.55 metre
	Length	=	1.78 metre
	Thickness	=	0.15 metre

The port-hole is present in the north wall measuring 41 centimetres in diameter and is shut off from the outside by a stone slab.

The distinctive port-hole opening which is found in South India is a notable integral connexion with the West, but it does not occur among any of the Central Indian tribes who bury the dead in megalithic graves such as Mundas and Hos. "Third century B.C. to first century A.D. is accepted as a provisional time bracket for the South Indian megaliths". (Wheeler 1947.)

Total number of graves in

Site I	=	96 graves
Site II	=	235 graves
Site III	=	100 graves

The following data for these Mandapalli sites I, II and III have been collected.

- (1) Grave-to-grave distance
- (2) Grave-to-grave bearing
- (3) Diameter of the grave
- (4) The number of stones in the circle.

Grave-to-grave Distance and Bearing:

The three Mandapalli sites have been mapped as illustrated in the figures. The graves in these burial sites do not appear to have been laid out in any particular pattern. Few clusters of graves here and there can be observed in the maps; but otherwise uniform distance has been maintained. Perhaps these clusters may have belonged to family groups.

NUMBER OF STONES

The mean number of stones have been computed for the three Mandapalli sites.

	Number of graves with intact circles	Mean number of stones
Site I	49	12.47
Site II	127	12.78
Site III	79	14.15

The mean number of stones used are not significantly different between Sites I and II, but both are from Site III (95% confidence limits).

DIAMETER OF STONE CIRCLES

The mean diameters as computed are

	Number of graves	Mean diameter	Standard observation	Range of Diameter
Site I	49	5.96 metres	1.2184	3.5 to 9 metres
Site II	127	5.99 metres	1.5409	3 to 9 metres
Site III	79	6.33 metres	1.5074	3 to 9.5 metres

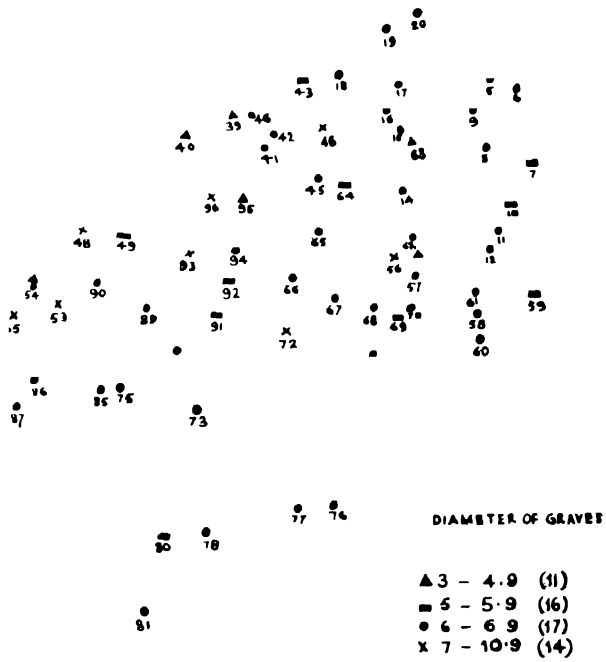
The mean diameters in Mandapalli sites I, II and III do not differ significantly from one another. Normal frequency distribution curves have been fitted for the diameters of the three sites and as illustrated in the graphs, the distribution curves for observed and expected values of diameter display a good fit. From these results, it can be concluded that about 68% of the graves in these three sites are clustered around the mean diameter, which does not differ significantly in any of the three Mandapalli sites.

As these type of tombs contain selected bones of more than one individual and they were rarely used on more than one occasion, it is reasonable to postulate that a burial vault was restricted to a family. In that case, if the size of the diameter has any connexion with the size of the family,

PLATE I

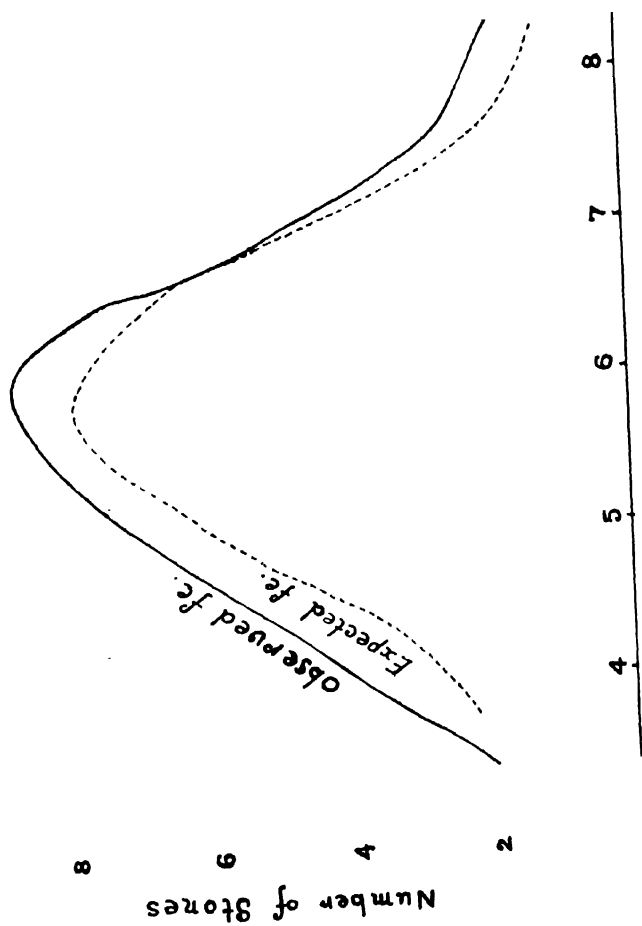
MANDAPALLI SITE I

SCALE... 1cm = 1 Meter (1:1000)



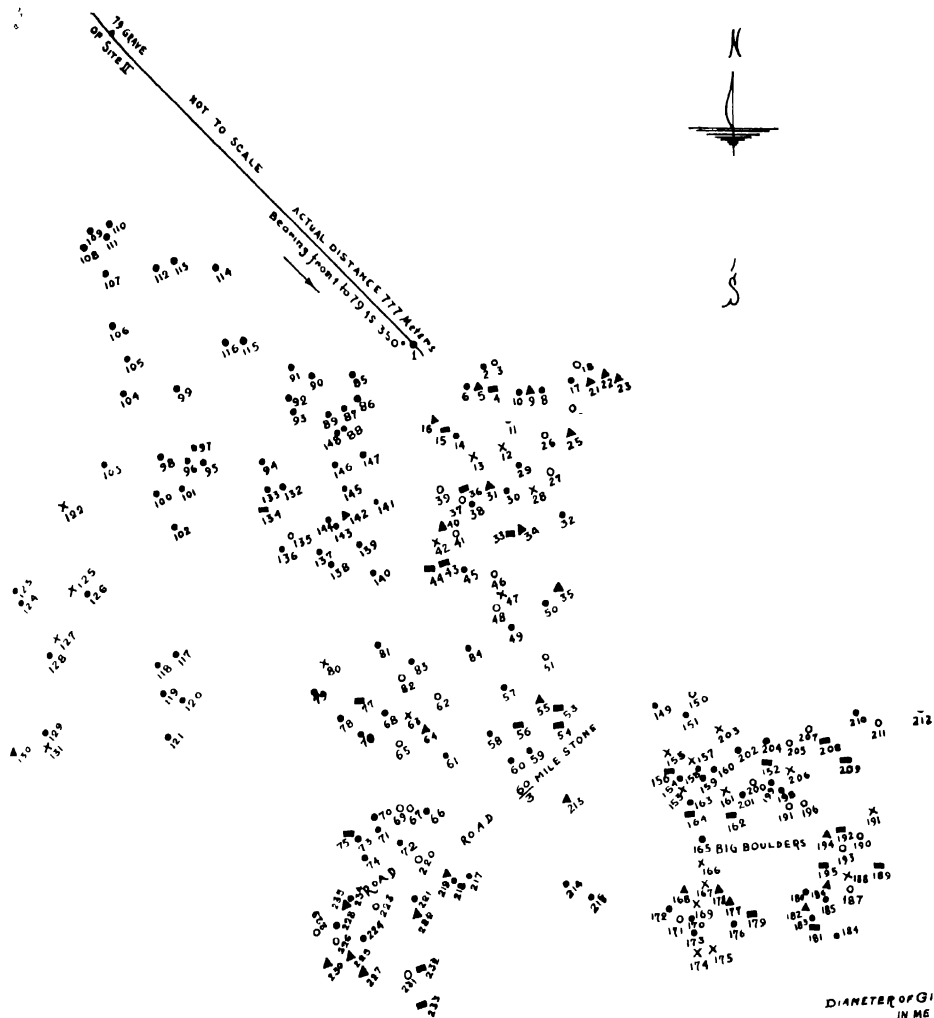
SITE I

MANDAPA



DIAMETER OF GRAVES (Meters) —

PLATE III



SITE II MANDAPALLI

Scale $\frac{1}{2}$ cm To A Meter (1:2000)

TOTAL N° OF GRAVES 235

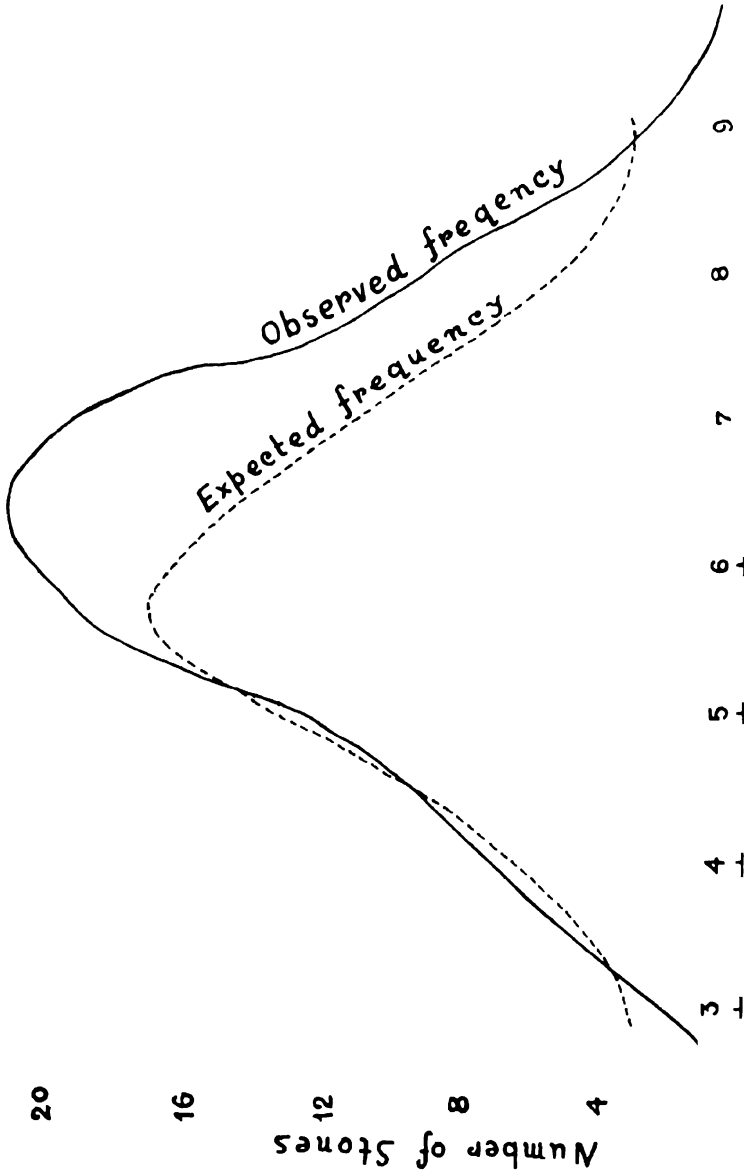
DIAMETER OF GI
IN ME

- ▲ 3 - 4.9 (2)
 ○ 5 - 5.9 (3)
 ■ 6 - 6.9 (2)
 × 7 - 7.9 (2)
 ● 8 - 9.9 (1)

II

SITE

MANDAPA



Diameter of Graves (Meters)

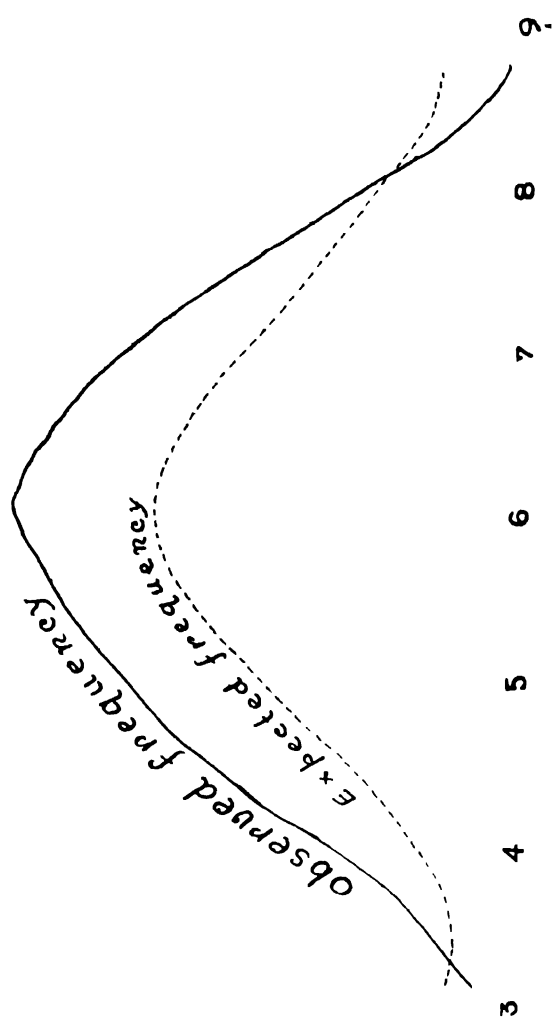
Number of Stones

6

2

8

MANDAPALL SITE III



DIAMETER OF GRAVES (Meters)

PLATE VI

SITE III MANDAPALLI

SCALE 1/2 CM. TO A Meter (1:2000)

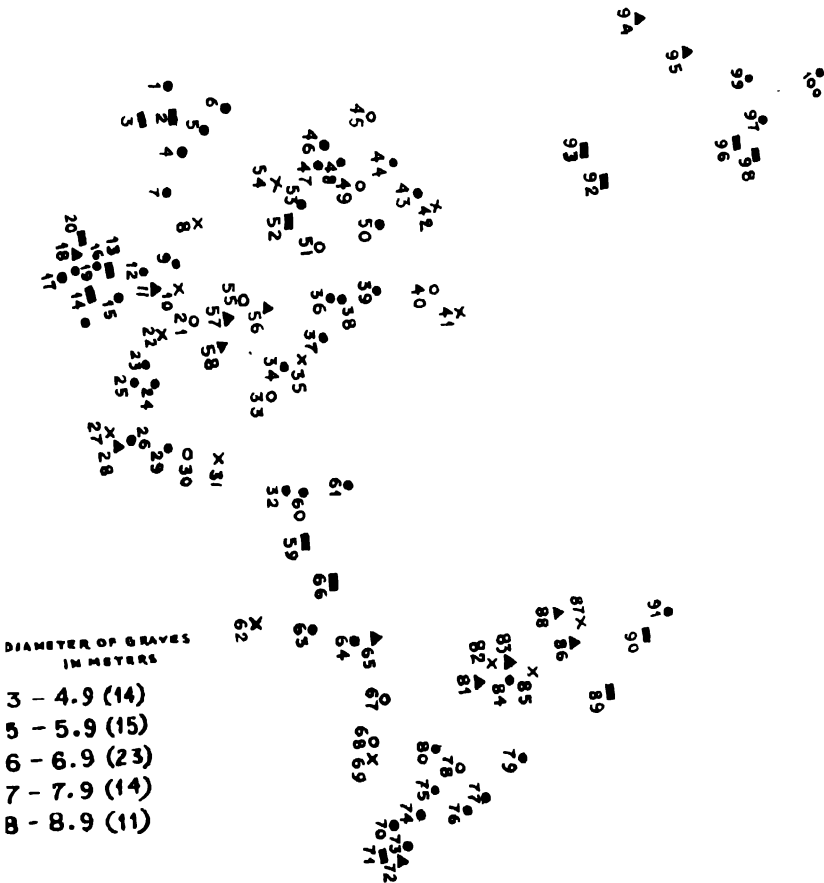


PLATE VII



NUSTULAPUR GRAVES

SCALE.. 2cms = 1 Meter (1.500)

the normal distribution curve indicates that small families were as rare as big families. If this postulation is correct, the graves around mean diameter may reveal average size of the family.

An alternative explanation of this difference in size could be associated with the income or property distribution among the members of this community. The rich going for the larger graves and the poor for the smaller ones. If this were true, the size distribution does not reveal that a larger proportion of this community were relatively poor.

There is very little evidence to support the view that distinct social and occupational groups had different burial places and the size of the grave is in some way related to the social or occupational station of the buried. The accompanying maps of these sites where the different symbols which represent different ranges of diameter are distributed without any semblance of a segregated pattern. The graves which are not marked by symbols are those which have been disturbed and do not have intact stone circles.

Correlation coefficient of number of stones and diameter of stone circles:

The purpose of these regression equations is to find out (a) how much correlation there is between the diameter and number of stones and (b) whether the correlation coefficients are significantly different in the three Mandapalli sites.

The regression equations for the Mandapalli sites are

$$\begin{aligned}\text{Site I} & \quad Y = 1.71 + 1.8062 X \\ \text{Site II} & \quad Y = 4.4036 + 1.3978 X \\ \text{Site III} & \quad Y = 8.0472 + 0.9641 X \\ Y & \quad \text{Number of stones} \\ X & \quad \text{Diameter in metres.}\end{aligned}$$

	'r'	'r ² '
Site I =	0.6674	0.4459
Site II =	0.5031	0.2500
Site III =	0.4394	0.1936

The correlation coefficient 'r' in the three sites do not differ significantly. The value r² shows that there is 44%, 25% and 19% of variance in Y (number of stones) associated with the variance in 'X' (diameter) in Mandapalli sites I, II and III respectively. Therefore, it can be suggested that the burden of the unaccounted explanatory variables such as (a) size of each individual stone and (b) spacing between stones would be taken up by the constants in these equations.

Conclusion: Statistical methods have been applied to the three Mandapalli sites taking into account the two variables

- (a) diameter of graves
- (b) the number of stones.

(1) The diameter of the graves in the three Mandapalli sites fits in with normal frequency distribution. 68% of the graves in all the three sites are clustered around the mean diameter which is not significantly different in the three sites.

(2) The mean number of stones used is not significantly different between Sites I and II, but both are from Site III (95% confidence limits).

(3) The correlation coefficients do not differ significantly in the three Mandapalli sites. The correlation coefficient r² shows that 44%, 25% and 19% of variance in Y (number of stones) is associated with a variance

in 'X' (diameter). Some other explanatory variables such as size of stones and spacing between stones is almost certainly associated for the rest of the variance in Y.

ACKNOWLEDGMENTS

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“THE VAKEELS IN THE EARLY DAYS OF BRITISH RULE IN BENGAL, 1793-1833—THE IDEALS AND THE ACHIEVEMENTS”

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NATURE OF VAKEELS BEFORE 1793:

Pleading as an exclusive occupation, undertaken by men of specialised legal knowledge and training, did not exist in Bengal before 1793. In the initial phase (1772-93) of the Company's administration there, the Vakeels used to be of two types. The first were private servants, relatives or dependants of the parties appointed by the latter to do *pairvi*¹, as well as to plead their cases. To the second type belonged those residents of the Sadar Station (where the Court sat), who offered to act as Vakeels for the parties willing to engage them. For most such persons pleading was, at best, a side business. For instance, before Cornwallis's reforms were implemented, nearly 200 persons styled themselves as Vakeels at the District Headquarter of Saran. Excepting a few employed whole time by the rich and litigant zamindars, the rest were primarily Goldsmiths, vendors of liquors, and other shop keepers². Similar condition existed at Murshidabad³.

The Vakeels of the first description (i.e., the servants, relatives or dependants of the parties), enjoyed greater trust of their clients, than those of the second type, in spite of the formers' being, in general, almost completely ignorant of the Laws and the Regulations, and the forms and procedures of the Courts. Neither were the majority of the second class, (i.e., the semi-professional types), much better in this respect. Lack of qualification, however, was not the only evil said to be attending the institution of Pleaders in the pre-1793 days. Being mostly salaried servants of the suitors those Vakeels were found inclined to prolong the litigation to prevent their salary ceasing. Governor-General, Lord Cornwallis remarked on them in 1793, "The present Vakeels are of low character and reputation. They are often bribed by the opposite party to betray their Constituents. If detected in bad conduct in one Court they easily shift to another. They are generally ignorant of the laws [Hindu and Mohammedan] and regulations"⁴.

REFORMS OF 1793:

An honest, upright and efficient class of Pleaders was one of the factors that would facilitate the implementation of Cornwallis's scheme of the 'rule of law'⁵ and it was perhaps for this predominant reason that Cornwallis intended to lift the institution of Vakeels in Bengal to the ideal state, by

¹ In Court language *pairvi* means the efforts (other than legal) made to bring the case to a decision in favour of a particular party.

² Charles Boddam, Saran Judge, to Sadr Diwani Adalat, 30th May, 1794, Sadr Diwani Adalat (henceforth abbreviated S.D.A.) Proceedings, 10th July, 1794, Nos. 4-6.

³ J. H. Harington, Murshidabad Judge, to S.D.A., 22nd May, 1793, Bengal Civil and Criminal Judicial Consultations, 1st August, 1793, No. 5 (Henceforth referred to as Civil and Criminal Judl. Cons.)

⁴ Cornwallis's Minute, 11th February, 1793, para 73, Bengal Revenue Consultations, 11th February, 1793, No. 1.

⁵ The concept of the 'rule of law' implied that things were to be governed not by the individual discretion of Government Officers but according to the impersonal agency of laws to which the ruler and the ruled, both were to be subject alike.

making pleading a specialised profession. He observed: "If causes were pleaded by licensed pleaders only, they would, in due course, become versed in the laws and the regulations. They would not only inform the Judges by their pleadings but also be a great check upon their conduct"⁶.

Regulation VII of 1793, was framed to realise the above lofty ideas of Cornwallis in respect of the Pleadors. By it pleading was made a distinct profession to be undertaken only by persons so authorised by the Sadr Diwani Adalat. The number and selection of Pleadors of the District and Provincial Courts was left to the discretion of the Judges of those Courts, who were to recommend a list of persons considered fit to act as Vakeel in their Courts to the Sadr Diwani Adalat, for grant of 'Sanads' or letters of investiture. A person became entitled to practise as Pleader only after receiving such a 'Sanad'.

Raising the academic standard and social status of Vakeel was another basic feature of Cornwallis's scheme for the reform of this institution. By Section 5, of Regulation VII of 1793, it was provided that the Pleadors were to be selected from amongst the graduates of the Calcutta Madrasa or the Hindu Sanskrit College at Benares⁷. If sufficient persons of this description were not available, the Judges were authorised to select "men of character and liberal education"⁸. While applying this discretion, the Judges were required to insure that, as far as possible, the persons recommended for the appointment had the knowledge of the Hindu or the Mohammedan laws⁹.

PERSONNEL AND QUALIFICATIONS OF VAKEELS 1793-1833

The profession of Pleaders had been one of ill repute before 1793¹⁰. But even Cornwallis's effort to reform it seems to have borne little fruit. From the appointments made after 1793, it appears that by and large the profession continued to remain unattractive to men of education and talent. Very few graduates of the Calcutta Madrasa or the Hindu College could be attracted to the job of Pleading and in practice the efforts of the local Judges to abide by the spirit of the Government's above alternative instruction, (regarding the qualifications of persons to be selected), led mostly to nominations from amongst the existing Pleadors. A number of persons who in the past had in any way been associated with judicial work or an office of responsibility, were also selected to the rank. The gate was also kept open for "men of character of liberal education", and those versed in the Hindu or the Mohammedan Law, though persons fitting the latter classification, as Alexander Seton, Judge of Behar (Gaya), informed, "were men of religious persuasion, who led retired lives and did not interfere in worldly concerns"¹¹. The knowledge of judicial procedure and the indigenous laws and the regulations being essential for a Vakeel, the preference for experienced former Pleadors (whose acquaintance with the laws, regu-

⁶ *Ibid.*, para 74.

⁷ The Calcutta Madrasa had been established in 1780 by Warren Hastings. The Benaras Sanskrit College was founded by Jonathan Duncan in 1791. In the Madrasa special emphasis had been laid on the teaching of Mohammedan Law, while in the Benaras College special stress was on the teaching of Hindu Law. One of the objects behind the creation of these institutions had been to produce competent officers for the Courts of Justice and to supply qualified Indian assistants to European Judges; Holwell, A.: *Education in British India*, Cal. 1872, pp. 1 and 2.

⁸ Resolution of Board of Revenue (n.d.), Bengal Revenue Judicial Consultations, 26th April, 1793, No. 1.

⁹ *Ibid.*

¹⁰ This is apparent from Cornwallis's Minute of 11th February, 1793, as well as from the reports of several District Judges recorded on the Proceedings of the Sadr Diwani Adalat.

lations and Court procedure was usually "subsequent to their engagement in the profession or, rather the effect of necessity¹²"), and for the same reason, those associated with judicial situations, was only natural.

This pattern of selection is apparent from the appointments made between the years 1793 and 1800.

In Murshidabad, (the seat of the former Administration of the Nawab) eleven persons were licensed to plead in the local City Adalat on the recommendation of J. E. Harrington, the City Judge¹³. Of this lot five had practised as Vakeels before, another three had previously held judicial offices of *Munshi*, *Fauzdari Munshi* and *Kazi* respectively; two had held responsible, though non-judicial, positions under Reza Khan (the former *Naib-Diwan* of Bengal) and certain European gentlemen; and the remaining one, by the name of Aminchand, had been known to be versed in Hindu law¹⁴.

The recruitment at Chittagong Adalat followed the same mixed pattern¹⁵. Of the total of thirty-one nominated, eight had earlier held different ministerial offices in the Courts like those of *Sheristedar*, *Peshkar Kazi*, *Fauzdari-Munshi*, *Mohurrir* (writer), etc., one had formerly been employed in the Salt Department and in the Revenue Department as *Amin* and *Tehsildar* respectively; one Rafee-ul-Sadr, by name had held no office before, but was known to have been a man of good character and ability; and the remaining twenty-one nominees had been Vakeels from before.

The story repeated itself in most other District Adalats like those of Birbhum, Tirhoot, Midnapur, Jessore, Purnea, Dinajpur, Dacca, Jalalpur, Shahabad, Behar, Rajshahi, Sylhet etc., with former Vakeels constituting the majority of the new panel¹⁵.

It is clear from the above survey that in spite of Cornwallis's efforts to extol the institution of Pleaders the quality of Vakeels could not be much improved. Neither the "graduates of the Calcutta Madrasa and the Hindu College", nor many candidates fitting the category of men of "character and liberal education", could be drawn to this profession. Availability remaining the restrictive factor, it may well be concluded that Cornwallis's scheme failed to bring about any major change in the personnel of Pleaders.

As the provision of Regulation VII of 1793, (S.5), requiring Vakeels to be selected from amongst the graduates of the Government Colleges had remained inoperative, the Bengal Government was persuaded to re-emphasise in 1814 (by Regulation XXVII of 1814, S.3, Cl.3) the preference for graduates of Public Institutions in the recruitment of Pleaders. Eleven years later the Administration had to draw the attention of the local Judges to the above provision¹⁷, which only suggests that even until 1825 the personnel of Pleaders could not be brought up to the standards laid down by the Regulations. Availability, as before, must have remained the chief impediment.

¹¹ Civil and Criminal Judicial Consultations, 28th June, 1793, No. 3.

¹² C. Keating, Birbhum Judge, to Government, 11th May, 1793, Civil and Criminal Judicial Consultations, 24th May, 1793, No. 37.

¹³ Civil and Criminal Judicial Consultations, 31st May, 1793, No. 24.

¹⁴ Harrington to Government, 22nd May, 1793, Civil and Criminal Judicial Consultations, 31st May, 1793, No. 24.

¹⁵ *Ibid.*, No. 28.

¹⁶ This can be gathered from the appointments made on the recommendations of the local Judges, recorded in the Proceedings of the Sadr Diwani Adalat between 1793 and 1801.

¹⁷ Resolution of Government-General-in-Council, 22nd September, 1825, para 1, Bengal Civil Judicial Consultations, 25th September, 1825, No. 1 (Henceforth referred to as Civ. Judl. Cons.).

In 1826, an attempt was made to ensure the supply of persons of tested ability for taking up the jobs of Pleaders. By Regulation XL of that year, a Committee of Examination was set up at Calcutta to hold annual examinations for candidates seeking appointments as Law Officers¹⁸, and Vakeels in the Provincial and District Courts. Candidates qualifying in this examination were to be issued certificates of fitness by the said Committee, who were also required to forward the names of successful candidates to the respective Courts where they may wish to be appointed. This mode of appointment was not made exclusive, but candidates riding on the recommendation of the Examination Committee naturally carried a stronger claim to selection. In the years following 1826, however, certificate holders from the above Committee are found soliciting the jobs of Law Officers only which then carried a fixed salary of Rs. 140/- per month. Apparently, the situation of Vakeels was neither attractive enough yet, nor so competitive, as for candidates to take the trouble of seeking it through the Examination Committee.

It was not until 1846, that a system of compulsory professional examination for Pleaders was established. Under a provision of Act I of 1846, (S.4), the Sadr Diwani Adalat arranged to conduct Pleadership examinations at the Divisional Headquarters like Calcutta, Patna, Dacca etc., by Examination Committees set up at each of these stations. Candidates qualifying in these examinations were to receive diplomas which only would make them eligible to become Vakeels.

GOVERNMENT PLEADERS.

Appointment of one Government Pleader in every Adalat was another notable feature of Cornwallis's scheme of 1793. The idea had been to have a lawyer in every Court to work and Plead on behalf of the Government in suits between the Government and the private parties.

The ablest of the Vakeels attached to a Court was to be nominated its Government Pleader¹⁹. As in the case of other Vakeels, initially the appointments were to be made by the Sadr Diwani Adalat, on recommendations from the local Judges. But, apparently in view of the importance of this office, the Bengal Government decided in 1797, to assume themselves the responsibility of appointing Government Pleaders²⁰. The 'Sanads' (authority of office) issued to the thirty-five existing Government Pleaders were withdrawn to be replaced by new written authorities from the Government²¹. All future appointments were now to be made by the Governor-General-in-Council, on recommendations from the Judges. In 1806, the District Judges of Twenty-four Parganas, appointed a Government Pleader for his Court of his own accord without making a reference to the Government. The Governor-General-in-Council disapproved the Judge's action and informed him that the person appointed by him could not function without obtaining the prescribed authority from the Government²².

Nor could a person be appointed Government Pleader direct, without first becoming enrolled as an ordinary Pleader. In 1816, one Abdul Haq, a talented young man belonging to a family of distinguished Pleaders was

¹⁸ One Hindu and one Muslim Law Officer used to be attached to every Court. Their job was to assist the Judges in deciding cases governed by the Hindu and Mohammedan Laws.

¹⁹ Resolution of Board of Revenue, (n. d.), Bengal Revenue Judicial Consultations 26th April, 1793, No. 3.

²⁰ By S. 5, Regulation VIII of 1797.

²¹ Civ. Judl. Cons., 13th October, 1797, Nos. 2 and 3.

²² Civ. Judl. Cons., 26th June, 1806, No. 5.

recommended for appointment as the Government Pleader of Chittagong Zila Court²³. The Government held the view that the proposed appointment could not be conferred upon Abdul Haq without his being constituted a Pleader first²⁴.

In 1814, the Bengal Government created the post of Remembrancer of Legal Affairs. This officer was to be the over-all in-charge of the legal affairs of the Government. As such, he was given control over the appointment of Government Pleaders. Henceforth, the recommendations for those appointment were to be made by the Remembrancer in consultation with the local officers. With the establishment of this procedure, a new practice of allowing the Collectors a say in the recruitment of Government Pleaders of the Districts came into being²⁵. Most cases in which the Government became a party, involved revenue matters. Since, as the revenue officer of the District the Collector naturally had to be a party on behalf of the Government in those cases, it was considered advisable to let the Collector have a voice in the selection of Government Pleaders, who were to take instructions from him.

In the post-1814 period Collectors are found invariably being consulted in the appointment of Government Pleaders of the District Adalats. In some instances, like one in Chittagong, in 1823, the Government Pleader was appointed solely on the recommendation of the Collector, the Judge not having been consulted at all²⁶. In 1824, the Judge (Mr. Dawes), and the Collector (Mr. Magniac) of Dacca, recommended two different individuals for appointment as Government Pleader of the local Adalat²⁷. The Collector's recommendation was given precedence over that of the Judge's, the Collector's candidate having been finally appointed by the Government on the endorsement of Mr. Molony, the Remembrancer²⁸. Similarly, in 1827, in Chittagong, the Collector's nominee, Nityanand Mukherjee, was appointed Government Pleader, in preference to Ghulam Ali who had been recommended by the Judge²⁹.

REMUNERATION OF:

(a) *Pleaders*: By S.9 of Regulation VII of 1793, Pleaders were forbidden to accept any consideration other than the prescribed fee according to the following scale:

In cases not exceeding Rs. 1,000/- in amount or value 5% on the pecuniary value; in cases between Rs. 1,000/- and Rs. 5,000/- 4%; in cases between 5,000/- and 10,000/- 3%; and in cases of more than 10,000/- 2%.

Until 1796, the practice had been to calculate the Pleader's fee by multiplying the value of the suit with the percentage admissible on the value group to which the particular case belonged, instead of working it out slabwise, e.g., in a case of Rs. 1,200/- —5% on 1,000/- +4% on the remaining 200/-, and so on. This method could result in situation when Pleader's fee in a case of lower pecuniary value might exceed the fee in a case of higher value. For instance, in a suit of Rs. 1,100/- the Pleader's fee, calculated @ 4% used to be Rs. 44/-, and in one of Rs. 1,200/-, —Rs. 48/-

²³ Civ. Judl. Cons., 15th Nov., 1816, No. 18.

²⁴ *Ibid.*, No. 19.

²⁵ Hithertofore, the appointments used to be made solely on the recommendations of the District Judges.

²⁶ Civ. Judl. Cons., 10th April, 1823, Nos. 8-10.

²⁷ Civ. Judl. Cons., 16th Jan., 1824, Nos. 17-19.

²⁸ *Ibid.*, No. 20.

²⁹ Civ. Judl. Cons., 28th June, 1827, No. 11.

at the same rate; while in a case of Rs. 1,000/-, the fee according to the prescribed rate of 5% was to be Rs. 50/-. In 1796, the Registrar of Sadr Diwani Adalat drew attention to this anomalous situation, and his proposal for changing over to a slab system of calculation was adopted by the Bengal Government³⁰. This was as under:—

In cases up to Rs. 50/- 1 anna per rupee; in cases between Rs. 50/- and Rs. 200/-, — 1 anna per rupee on Rs. 50/- + $\frac{1}{2}$ anna per rupee on the remainder; in cases of more than Rs. 200/- but not exceeding Rs. 1,000/-, 1 anna per rupee on Rs. 50/- + $\frac{1}{2}$ anna per rupee on Rs. 150/- + 3% of the remainder and so on with the percentage reducing at every higher value slab.

In computed figures, the Pleader's fee in a case of Rs. 50/- worked out to Rs. 3/2/-; Rs. 7/11/- in a case of Rs. 200/-; Rs. 31/11/- in that of Rs. 1,000/-; and Rs. 131/11/- in one of Rs. 5,000/-; In Summary³¹ cases, Vakeels were to be entitled to $\frac{1}{4}$ th of the fee payable if it were a regular suit.³²

This system of payment of fees implied that even a Vakeel of twenty or twenty-five years standing was to receive the same remuneration for his exertions as a new entrant to the rank. Allowing no premium to experience in the entitlement of fees was bound to make this profession less attractive to ambitious aspirants and reduce incentive for those already in it.³³

(b) *Government Pleaders*: No special emolument, besides the fee prescribed for Vakeels, had been provided for Government Pleaders under Regulation VII of 1793. But in 1794, to make the office more attractive, the Government decided to pay them a fixed monthly salary in addition to their authorised fees, on the following scale³⁴:

For Government Pleader of Sadr Diwani Adalat—Rs. 60/- per month.

For Government Pleader of Provincial Courts— Rs. 50/- per month.

For Government Pleader of District Adalats— Rs. 40/- per month.

In 1801, the Government reduced the salary of Government Pleaders of District Adalats by half to Rs. 20/- per month³⁵. Reasons for this could be economy justified by a presumption that the Government Pleaders of District Adalats were able to earn a sufficient income from fees in the Government and private cases. This decision drew protest from a number of Government Pleaders employed in the District Adalats, on the ground of the hardship the reduction created, the income from fees being very inadequate³⁶. The Bengal Government, however, remained rigid³⁷. For the rest of the period under review the salary of Government Pleaders remained Rs. 20/- per month.

(c) *Reform of 1833*: In 1833, the system of State-regulated fees for Pleaders was abolished. By Regulation XII of that year the previous Clauses of Regulation VII of 1793, and XXVII of 1814, were superseded by the rule that henceforth parties were to settle the fees with their Vakeels themselves. This was a decision of tremendous significance because besides

³⁰ Civ. Judl. Cons., 15th July, 1796, No. 33.

³¹ Suits concerning arrears and exactions of rent had to be decided with utmost priority in the Courts by a Summary process which omitted many of the formalities of regular suits. Such suits were, therefore, termed 'Summary Suits'.

³² Resolution of Governor-General-in-Council, 2nd September, 1796, Civ. Judl. Cons., 2nd September, 1796, No. 26.

³³ For further discussion on this point see below footnote 58.

³⁴ Bengal Criminal and Judicial Consultation, 14th March, 1794, No. 12.

³⁵ Civ. Judl. Cons., 6th August, 1801, No. 4.

³⁶ Many recorded instances of such representations are to be found in the Bengal Civil Judicial Consultations from 1802 to 1804.

³⁷ Civ. Judl. Cons., 17th May, 1804, No. 16.

expanding the income potential of this profession, it brought both independence and prestige to its members³⁸.

ASSESSMENT OF THE INSTITUTIONS

In 1793, Cornwallis had entertained lofty visions about the future ability, integrity and respectability of the new institution of Pleaders: "They [Vakeels] would not only inform the Judges by their Pleadings, but also be a great check upon their [Judges'] conduct... They would put a stop to all the numerous abuses which are daily practised by the ministerial officers of the Court... They would disseminate amongst the people a knowledge of the many important Regulations which have been enacted... and will be enacted by [sic] consultation [with them]³⁹".

Subsequent appraisals of this institution, however, belied the founder's 'great' expectations.

In 1795, fourteen months after the establishment of the institution of licensed Vakeels in the Bhagalpur Adalat, Judge Henry Douglas reported complete disillusionment with all the Pleaders of his Court, who continued to remain hopelessly deficient not only in the knowledge of the Regulations in force and the Laws (Hindu and Mohammedan), but also in that of Persian, the official language of the Courts⁴⁰. In 1797, J. Stonehouse, the Judge of Chittagong, found the Vakeels of his Court extremely ignorant of the Regulations⁴¹. He cited one particular example of one of the best Pleaders of his Court, who in course of trial, was found completely unaware of the existence of Regulation XI of 1793⁴².

In 1800, Ramakanta and Ramkanhai Bhattacharya, two Pleaders of the Dinajpur Adalat, had to be dismissed for having collusively defrauded a client of Rs. 64/- due to him under an *Ekrarnama* (Deed of compromise)⁴³.

Cornwallis's intention of converting pleading into an exclusive and whole-time profession also does not seem to have been fully realised. For example, in 1799 William Douglas, the Judge of Rajshahi, reported⁴⁴ that most Vakeels of his Adalat were retained *naibs* (servants) of the principal landlords of that District. In discharge of their latter obligation such Vakeels frequently absented themselves from the Court under false pleas of sickness while in actual fact their abstention was due to their attendance at the Collector's office on the business of their employers or engagement in borrowing money for the latter for payment of *Kist* (contracted instalment of revenue), to save their (zamindars') estates from being attached for default. This absence of Vakeels not only retarded the business of the Court but also caused great hardship to the clients due to the consequent postponement of the hearing.

In 1802, the working of the entire judicial machinery erected in 1793, along with the institution of Pleaders was reviewed by the Bengal Government through answers to queries circulated among the Judges of the Provincial and District Adalats. Among other things the questionnaire (concerning Pleaders)⁴⁵ was designed to elicit information about the character,

³⁸ For further discussion on this point see below, footnote 58.

³⁹ Cornwallis's Minute, 8th February, 1793, para 74, Bengal Revenue Consultations, 11th February, 1793, No. 1.

⁴⁰ Bhagalpur Judge to Sadr Diwani Adalat, 23rd February, 1795, Sadr Diwani Adalat Proceedings, 16th April, 1795, No. 24.

⁴¹ Judge of Chittagong to Sadr Diwani Adalat, 18th October, 1797, Sadr Diwani Adalat, Proceedings, 1st Nov., 1797, No. 3.

⁴² *Ibid.*

⁴³ S.D.A. Proceedings, 29th June, 1800, No. 13.

⁴⁴ Douglas to S.D.A., 17th December, 1799, S.D.A. Progs., 8th January, 1800, No. 5.

⁴⁵ Interrogatories Nos. 8, 9 and 10, Civ. Judl. Cons., 29th Oct., 1801, No. 6.

integrity and usefulness of the Vakeels functioning in the Adalats. While the opinions on the character and integrity of the Vakeels were mixed, few Judges acquitted the class on efficiency and usefulness. The following notable extracts from the replies of some of the Judicial Officers would bear the point:

"The establishment of licensed Vakeels can in no manner expedite decisions. . nor can they be of any assistance in bringing the merits of the case before the Court, either more speedily or more accurately"⁴⁶.
—*Judges of Murshidabad Provincial Adalat.*

"The pleas urged by the Vakeels are frequently frivolous and tend to create unnecessary delay."⁴⁷
—*Judges of Provincial Adalat of Patna.*

⁴⁷ *Ibid.*, No. 29.

"They [the Vakeels] are not qualified to be Pleaders because, in general, they are not well acquainted with the Regulations."⁴⁸
—*Judge of Zilla Behar (Gaya).*

"Few men of character and ability are to be found amongst the members at present holding the situation [of Vakeels]... My expectations for any good effect from this institution have been utterly disappointed."⁴⁹
—*Judge of Burdwan.*

"Amongst the Vakeels here, a few may be considered men of character, fewer qualified for the office, and the whole of them, in general, very poor in knowledge of Regulation."⁵⁰
—*Judge of Hooghly.*

Twelve years later, the opinions expressed by the Judges, in reply to similar queries by the then Governor-General, Lord Hastings, were even more critical of the Pleaders. After making a detailed report of the ignorance, inadvertance, and foul intrigings of the Pleaders of his Court. T. Fortescue, the Judge of Allahabad, concluded that the institution of Vakeels was responsible for protracted trials and often mistaken decisions.⁵¹ In the interest of Justice, therefore, he recommended the abolition of this agency altogether in favour of a system of direct communication between the parties and the Judges.

The Judge of Zila Behar commented, "The body of Vakeels attached to this Court are just everything which the Government, while passing the Regulation [VII] of 1793, wished to rescue the office of Pleaders from"⁵².

On the basis of the official reports and the second-hand knowledge gained from the Civilians returning to England after retirement from the Company's services, the Directors were also led to form an adverse estimate of the institution of Pleaders. Thus, they observed in 1814, in a Despatch to the Madras Government.

⁴⁶ Civ. Judl. Cons., 8th July, 1802, No. 26.

⁴⁸ *Ibid.*, No. 42.

⁴⁹ *Ibid.*, No. 45.

⁵⁰ *Ibid.*, No. 52.

⁵¹ Fortescue to Government, 1st September, 1814, paras 103-8, Home Miscellaneous Series, Vol. 776 (n.p.).

⁵² Judge of Behar to Govt. (n.d.), para 17, Home Miscellaneous Series, Vol. 775.

"This measure [establishment of licensed Vakeels] though intended for the convenience of the suitors, is accompanied with injurious effects by placing the Plaintiffs and Defendants very much at the mercy of a set of men, who for the most part, we fear, are wanting in respectability of character... depending for their subsistence on the encouragement and formation of frivolous and vexatious litigations"⁵³.

The character and conduct of Pleaders continued to be an object of criticism for the rest of the period under review. In 1818, the Judge of Dacca informed that the Vakeels of his Court were "men of no education, or respectability, whose abilities, limited as they are, have ever been directed more to perplex and pervert the administration of justice, than to promote the legitimate interests of their constituents...."⁵⁴

And finally, in 1831 Raja Ram Mohan Rai gave for the first time a responsible Indian's assessment of the position of Pleaders, when he informed the Parliament that the Pleaders, particularly of the District Courts, "were treated as an inferior caste of persons."⁵⁵

There seems no doubt that the Vakeels had been held in low esteem. Nothing, perhaps, is more illustrative of this than the instance in which Wasil Ali, the Government Pleader of Chittagong, resigned in 1827, to accept the Peshkarship (a clerical assignment) of Burdwan Adalat.⁵⁶ Even more significant is the reaction of the Bengal Government and its officers, who seem to have taken this incident without any surprise.⁵⁷ The allurements for Peshkarship in preference to Government Pleadership, (the most coveted position among the Vakeels of a Court), is, indeed, a sad reflection on the status as well as credibility of the profession of Vakeels.

SOME CONCLUSIONS

The chief reasons for the institution of Pleaders failing to rise up to the standards contemplated by Lord Cornwallis were, in the opinion of the present author, the following:

Lack of qualification and integrity was, obviously, the first. Those drawn to the profession of Pleaders, during the period under consideration, were men with inadequate educational and social background and were, therefore, incapable of proper interpretation and practice of the Laws and Regulations in force. No profession composed of ill qualified and ill reputed persons can inspire respect.

Two more factors could be responsible for the low respectability of the profession and, consequently, for holding ambitious men of proper social and educational background, away from the rank of Vakeels. The first was lack of independence. The Vakeels were recruited by the Government and their earning was prescribed.⁵⁸ The fee payable to the Vakeels had been fixed by S.9. of Regulation VII of 1793. After 1814, the entitled amount could be paid to the Pleaders only through the Court, instead of by the parties direct.⁵⁹ The fixed entitlement of fee, in proportion to the amount or value of the suit, seriously limited the scope of expanding one's earning from this profession as it destroyed incentive for the Vakeels getting senior,

⁵³ Judicial Despatch from Court of Directors to Madras Govt., 29th April, 1814, paras 21 and 22.

⁵⁴ Civ. Judl. Cons., 6th January, 1818, No. 5.

⁵⁵ Evidence of Ram Mohan Rai before Select Committee of House of Lords, 19th September, 1831, Parliamentary Papers, 1831, Vol. V., pp. 728-9.

⁵⁶ Civ. Judl., 28th June, 1827, No. 11.

⁵⁷ *Ibid.*

⁵⁸ See above footnote 38.

⁵⁹ By Regulation XXVII of 1814, S. 23.

experienced and more qualified. Regulation XII of 1833, which permitted the Pleaders to settle their fees with their clients themselves was, indeed, a great step forward in the direction of liberating this profession from obnoxious state-control. It improved the income-potential of the Vakeels, and opened the prospect for the more experienced and more able Pleaders charging higher fee for their exertions than their less experienced or less able colleagues.

If a system of selecting Indian Judges⁶⁰ from amongst Vakeels had existed, the prospect would certainly have drawn better and more ambitious men to the latter profession. Establishment of a link between the Bar and the Bench would also have enhanced the status of the Vakeel. But, as Holt Mackenzie pointed out in 1832, "seldom, if at all, were Indian Judges selected from Pleaders."⁶¹

The efficiency of the Pleaders was adversely affected by yet another phenomenon for which they were not to blame at all. This was the reluctance of Clients to confide all the facts and documents of their cases to their Vakeels, which often prevented the latter from discharging their functions properly. Before 1793, suitors often used to appoint a *Mokhtear* or manager or attorney, to attend the Courts, and in most cases, to act as their authorised Vakeels. This practice continued even after 1793. Managers or *Mokhtears* continued to attend the Courts on behalf of their principals⁶². Though these agents could no longer plead themselves, still they alone were trusted with the confidential documents and vouchers by the parties. The licensed Vakeels appointed to plead the causes were, therefore, forced to depend upon the *Mokhtears* for instruction and guidance at every step. This naturally handicapped the Vakeels. As John Strachey, Judge of Mymensingh pointed out in 1802:

"When the suit comes to an investigation, the Vakeels never have the vouchers lodged with them or are they ever acquainted with the evidence intended to be produced, or in the least, with the merits of the case; but on every question being asked are forced to refer to the attorney [*Mokhtear*]."⁶³

This also delayed the disposal of suits. J. Arbuthnot, Judge of Tirhoot, informed that the Vakeels frequently pleaded non-receipt of documents or instructions from their clients and the latter's *Mokhtears*, as excuses for being unable to proceed with the suites.⁶⁴

⁶⁰ In 1793, only one class of Indian Judges was established namely that of Munsiffs. In 1803, a superior order of Indian Judgeship was established under the title of *Sadr Amins*. In 1831, still another class of Indian Judges, called Principal *Sadr Amins*, were added.

⁶¹ Evidence of Holt Mackenzie before Parliamentary Committee of Inquiry, 16th March, 1832, Parliamentary Papers, 1832, Vol. 12, pp. 15-16.

⁶² The first mention of the existence of this practice in the post-1793 period has been made by Charles Boddam, Judge of Saran, in 1802, in course of a report on the usefulness of Vakeels. (*Vide* Civ. Judl. Cons., 28th July, 1802, No. 71). That the *Mokhtear* had become a regular feature of the Judicial System of Bengal, is apparent from the frequent references subsequently made about them in the official Consultations. In 1832, Holt Mackenzie, in his evidence before Parliament, listed the *Mokhtear's* fee among the regular Court expenses of the suitors, (*Vide* Parliamentary Branch Collections, 1832, Vol. 77, pp. 41-43).

⁶³ Civ. Judl. Cons., 8th July, 1802, No. 60.

⁶⁴ *Ibid.*, No. 78.

THERMAL SPRINGS OF INDIA

S. DEB

INTRODUCTION

The possibilities of economic utilisations of natural thermal waters and gases, have an universal appeal, due to their various curative and medicinal properties. Throughout Europe, Japan, New Zealand and North America, thousands of people suffering from various ailments, physical and mental, right from babies in arms to octogenarians, flock together in highly organised thermal centres, popularly known as Spas, every year, during summer and spring, in search of better health. Thus the pilgrims and travellers in the high Himalayas, quench their thirst, warm their tired limbs and get rid of their cold by taking a hot bath in the Gauri Kund thermal spring in Badrinath at an altitude of about 11 thousand feet, and in course of a day or two, they feel much better after a long tedious and tiresome journey, in that charming and invigorating atmosphere.

DISTRIBUTION AND ORIGIN OF THERMAL SPRINGS IN INDIA

It has been reported by Thomas Oldham, the first Director of the Geological Survey of India, that there are about 300 known thermal springs scattered all over India. In the memoir of Geological Survey of India published in 1882, by Thomas Oldham and his son R. D. Oldham, they have given the locations of 300 known thermal springs of India.

Certain geological conditions are necessary for the thermal springs to come to the surface of the earth from deep seated sources. Thus a group of springs emerge more or less along a line which usually indicate a fault, fissure or joints, through which heated waters from deep regions appear at the surface. In limestones and dolomites, the springs do not emerge along the faults but along the solution channels or orifices along the joint-planes.

There are four principal belts where the maximum number of thermal springs, are known to occur. In Behar and border of Bengal and Behar, the trend is more or less parallel to the boundaries of the Gondwana coal-fields, in Rajgir and Monghyr. In West Bengal, the hot springs occur in Bakreshwar area of Birbhum district adjoining the Santal Parganas of Behar.

In the West Coast of India, springs are found in Ratnagiri district, Thana, Kolaba, and Surat districts.

In the Himalayan and Sub-Himalayan regions, there are a number of thermal springs along the general tectonic trend of the Himalayas. In Pakisthan, springs are reported to occur in Sind-Beluchisthan area. Besides these main occurrences, there are small number of springs in the Mahanady Valley of Orissa, in Chitagong District of East Pakistan, in the Rangit Valley of Darjeeling District and also in the foothills of Assam. A few springs are reported to occur in Sikkim and Bhutan and also in Peninsular India. The springs of the West Coast of India, are closely related to the maridional dislocations of the Deccan trap which have affected the Peninsular India in the Tertiary epoch. The Behar and the Birbhum ones are closely related to the Post-Gondwana faults and the Himalayan springs are associated with the late-Tertiary orogenic movements.

UTILISATIONS OF THERMAL WATERS AND GASES

From time immemorial, evidences are available, that natural sources of hot springs, were considered as a method for curing chronic diseases. The Romans and Greeks used to keep the springs clean for drinking purpose and they also used the waters for external applications but they were very careful about the possibility of pollution and contamination of thermal sources. In ancient India, the rulers and their associates used thermal waters as a means of cure.

Many mineral waters contain enough soluble salts to give them a different taste than that of ordinary water and this mineral salts along with the minute radio-activity have imparted the required therapeutical property to the water and thus the water is sometimes called medicinal water. The principal ingredients are the sulphate of magnesium, and sodium, bicarbonates and chlorides of alkalies, and sometimes alkaline earths. Thermal waters usually contain strong acid radicals, chlorides, sulphates and also weak acid radicals, carbonates or bi-carbonates and silicic acid. These radicals occur in different proportions, sometimes one being more dominant than the others. Some waters are characterised by their high alkalinity. Due to the presence of dissolved carbon dioxide, they are slightly acidic in reaction. Thus the thermal waters range from acidic to neutral and then to alkaline type and for medicinal utilisation, these different types are used for the cure of a particular type of ailment. The main reasons for the attribution of the curing properties of the thermal waters are the presence of dissolved salts, trace elements, and the feeble radio-activity. Medical authorities are also conscious about the pharmacological action of the salt-bearing radio-active waters. The famous Karlovy Vary spring of Czechoslovakia, attract thousands of people every year for spa treatment.

Sometimes the spring waters have an alkaline-saline-muriatic characters. The salts are sometimes Glauber's salt, sodium carbonate and bi-carbonate and a small amount of sodium chloride. The diseases which are mostly amenable to the treatment by the alkaline-saline waters are those of digestive disorders, liver trouble, particularly infectious hepatitis, characterised by easy fatigue. It has been reported that chronic hepatitis and gall-bladder inflammations are sometimes cured by spa-treatment. A strict therapeutical regime is necessary for quick results, which consists of regulated drinking of thermal waters, baths in thermal sources, physical exercise, diet and for this purpose a definite prescription is drawn by the attending physicians for each patient. Presumably not all the ailments can be cured by the applications of a particular type of thermal water, namely alkaline, neutral or acidic.

The alkaline waters usually contain a high proportion of soluble salts. Diseases like cardio-vascular disorders, kidney troubles, hypertension, etc., which require salt-free water for treatment, cannot be recommended for the use of this type of water. Moreover patients suffering from asthma and other ailments of respiratory organs, cannot get a suitable atmosphere of cure, where there are too much dissolved salts in waters. Usually neutral water with insignificant amount of dissolved salts, are recommended for this purpose. Bakreshwar thermal spring water and also of Rajgir may be useful for the amelioration of the above-mentioned diseases.

In spas all over Europe hot mud baths are recommended for patients suffering from pain and inflammation. The algae produced in and around the hot springs, appear to be radioactive. So they are carefully collected, dried and pulverised and when mixed with some medicinal products, they

THE MAP SHOWING THE DISTRIBUTION OF
HOT SPRINGS IN INDIA



SCALE
INDEX TO SIGNS

- Hot Spring, the temperature of which is known to exceed 38°C
 - Hot Spring, the temperature of which is less than 38°C or unknown
 - + Hot Spring, the geographical position of which is more or less conjectural.
- Major belt of thermal Springs.

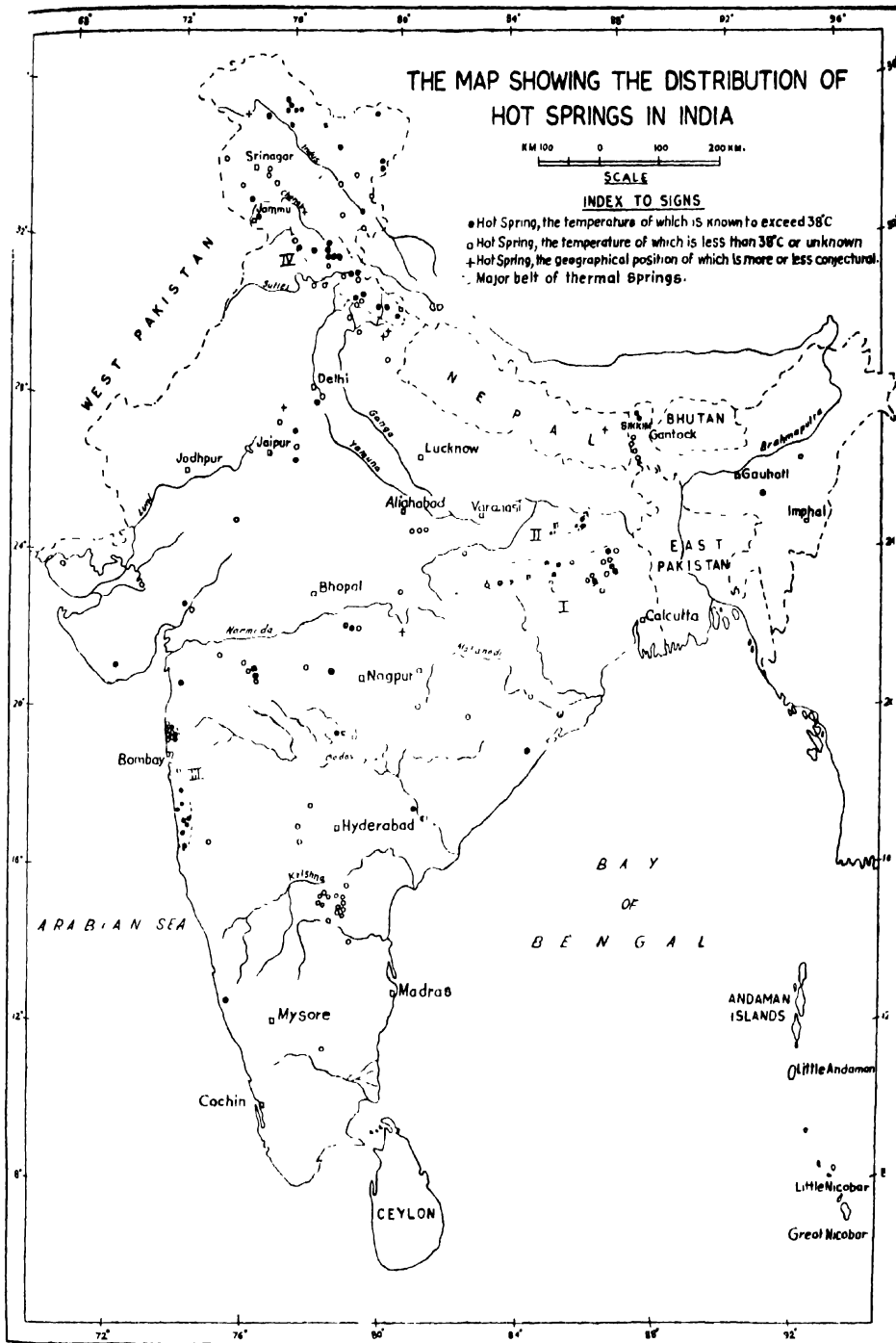




Fig. I.

Bakreshwar thermal springs of Bulbhum Dt. white walled areas are the springs, the overflow is draining out in the Papahara tank.



Fig. II.

The actual orifice through which thermal water comes to the surface. Surajkund, Hazaribagh.

Fig. III.

The geyser of Manikaran, Kulu Him alayas. Superheated steam gushing out along with hot water. Above is the Harihar temple.



act as an excellent pain-killing mud, which may be applied externally on knees or feet.

Detail microscopic studies of the siliceous remains of the different species of diatoms occurring near the thermal springs, have been done, in some of the thermal springs of Europe and North America. The most common type of algae found in the thermal springs are usually filamentous. Some green species flourish in waters having a temperature of 49°C-60°C, orange and red kinds of algae in waters of about 60°C to 71°C and the colourless to white algae in higher temperature springs. In Yellowstone National Park, algae, are found in spring waters having a temperature as high as 85°C. The algae which is found in thermal springs, is CYANOPHYCEES or blue algae, usually the green pigments of the species is masked by the blue pigment. They are formed by the intricate network of minute filaments enclosed in cells, surrounded by a viscus casing or sheath. The protoplasm of other plants which are inevitably coagulated by the heat of the thermal water, can resist well without getting decomposed. Chadot who has done a great deal of research work on the thermal spring algae, has been able to find about forty species from different springs, which are quite different from the symmetric forms found in cold water.

The CYANOPHYCEES, identified in the springs of Aix-les-bains at temperature between 45°C-47°C, are as follows:

- (1) *Aphanocapsa thermalis*.
- (2) *Phormidium luridum*.
- (3) *Chroococcus minutus*.
- (4) *Oscillatoria formosa*.
- (5) *Hapalosiphon laminosus*.
- (6) *Mastigocladus laminosus*.

Sulphur-Secreting bacteria, known as "Sulphuraria" are considered as minute vegetable organisms and are invariably present in some of the sulphurous thermal springs of India. Generally they are green and it has been reported that they are present in sulphurous waters not hotter than 122°F. They probably secrete silica in addition to sulphur. The bacteria known as CRENOTHRIX, form the rust-coloured gelatinous materials, found in the water of some cold iron springs but they usually do not live in thermal waters. These bacteria are coloured brownish by iron-oxide, deposited in their sheaths. Organic substances, usually reported from the analysis of thermal spring waters, are reported to be of crenic acid group,—a pale yellow uncrystallizable substance, found in the vegetable mould, and in ochreous materials. By the process of oxidation, it is converted into apocrenic acid, which forms a brownish amorphous deposits in thermal springs sites. These amorphous products are reported to be as crenates and apocrenates of sodium, potassium, and iron. Baregine, which is named after its first discovery in a place called Bareges in France, and hydrocin, is a brownish-yellow residue of nitrogenised organic matter, obtained on the evaporation of sulphurous waters in and around the spring sites. It has been reported that glarin is also present in the springs, which is a soft, onctuous amorphous deposits, sometimes developed in basins, where the thermal waters collect. It contains nitrogen and on ignition leaves a siliceous residue.

Animals are also present in thermal waters. Some of the workers at Vishwa-Bharati University, noted the presence of crabs, frogs, tadpoles in the basins near the spring sites at a temperature of 31°C. Small fishes are also noticed by me at a temperature between 35°C and 38°C, some ostracodes at 51°C.

In the United States of America, Brues, examined the fauna of 154 thermal springs in California and determined the upper limit of animal life

to be about 50°C, which is about 10°C above the normal limit. He also determined the upper limit of plant life in thermal waters, which is almost the same as the animal life. Thermal springs of Iceland had been studied by Tuxen. He found animal life in 37 thermal springs. Out of the six species, found in water above 40°C, only three were common. In thermal spring waters at lower temperature, about 46 species were found.

Development of table-water industry, for the benefit of the people suffering from minor ailments, is considered to be an important aspect of modern thermal water utilisation. There had been an increasing demand of bottled thermal water in all the developed countries of the world. The studies made by the Late Dr. P. K. Ghosh of G.S.I., indicate that some of the Indian waters can be comparable to the well-known foreign waters of great reputation. The Late Dr. P. K. Ghosh studied the effects of the utilisations of the thermal waters for medicinal purposes. He bottled them carefully, after a thorough bacteriological examination. These bottles of natural thermal waters were sent out to people in all different parts of India, to all different walks of life, along with a request that they should send their honest opinion, regarding the curing properties of the bottled waters. He writes in his report, "In due course and to our pleasant surprise, urgent requests were received from our clients and also from others who had heard about the waters for further consignments. The opinions expressed by them were very much encouraging. Some wrote even to say that the continued use of the bottled waters had proved beneficial to their health." So it is evident that there is a great possibility of the development of table-water industry in this country in future as we find that with the influx of tourist traffic in India, more and more foreign tourists will come to this country, who will consume most of the table-waters, if the bottling is properly done.

It has been reported that about two to three crores of foreign exchange are drained out every year in order to import neon and argon gases for our tube-light industry. The thermal spring gases not only contain these two economically important gases in ample quantity but also helium, which is an important ingredient in low temperature physics in space research and also in aeronautics. In the atmospheric air, the proportion of rare-gases is very low, whereas in thermal spring gases, they are considerably high. It is, however, difficult to harness the thermal spring gases in large quantities as they usually bubble out sometimes very regularly in some thermal springs and sometimes occasionally through the orifice, and through cravices. The thermal spring gases usually contain carbon dioxide, nitrogen, oxygen, hydrogen, methane, SO_3 , H_2S . The rare gases are neon, xenon, krypton, and helium. Prof. Lepape analysed some of rare gas of French thermal springs and found that they contain about 1.31% of argon, 0.084% of helium and about 0.2% of xenon.

No extensive studies of Indian thermal spring gases have been done as yet.

Another significant utilisation of the thermal energy available from the high temperature springs, is to convert the heat energy to electrical energy for the generation of power. In Italy, Japan, New Zealand, Iceland, U.S.A. and U.S.S.R. efforts are being made to utilise the geothermal resources of the country. For this purpose, intensive deep-drilling programme has been undertaken and most encouraging results were obtained. It is possible to come across, a reservoir of superheated dry steam in an area of igneous activity, mostly in a volcanic region. The total energy produced from geothermal sources all over the world, is about 1 million K.Ws.

In Japan, the famous Matsukawa geothermal power station, in N.E. Japan, is producing enough power to supply the need of the industries of the

region. Deep drilling at a depth of 700 metres gave an indication of the presence of superheated steam. Steam gushed out at a rate of 70 to 80 tons per hour at a temperature of 300°C. It was found that the single drill-hole is capable of producing about 8,000 K.W. of power. In India, some of the high temperature thermal spring sites may be explored for the purpose of obtaining power from geothermal sources. The high temperature thermal springs of the Himalayas, particularly the Manikaran in the Kulu Himalayas, and Gauri Kund in the Gharwal Himalayas may be considered as potential sources of geothermal units. Moreover it has been ascertained that the installation of these small geothermal power units, will be much cheaper than the construction of power units from hydal sources.

All these applications of the different thermal spring resources which I have discussed up till now, require definite "know-hows" which we should get indigenously through our own effort or we should get them from foreign countries. If sufficient foreign exchanges are available, we can get them completed by turn-key methods within a short period. But with our own effort, it may be achieved after serious painful experiments, first of all in laboratories, later on in pilot-plant stages and ultimately in manufacturing undertakings. For this last phase of development of new ventures, a team work of geologists, mineralogists, physicists, engineers and medical men and botanists are absolutely necessary. Moreover 100% confidence in our own "know-hows" is essential to achieve this objective. Prof. P. M. S. Blackett N.L. in his Nehru memorial lecture in 1968, said that the total output of new scientific and technological "know-hows" originating in U.K. was probably less than 20% of that of U.S.A. and perhaps less than 10% of that of whole world. For India, these figures must be divided by 10 (2% that of U.S.A.) According to Prof. Blackett, this situation will last for several decades. U.K. is not likely quickly to equal the wealth per head of U.S.A. nor India that of U.K. So both India and U.K. must learn to live in a very unequal world.

It is a very sad plight that up till now there is no effort in this country to increase the percentages of "know-hows", but let us be optimistic a bit and try our best to do the needful to increase our knowledge of different "know-hows" for the betterment of our country.

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NEW BUDDHIST TEXTS FROM CENTRAL ASIA

G. M. BONGARD-LEVIN AND E. N. TYOMKIN

The sensational finds of ancient Buddhist manuscripts in Central Asia at the turn of the 19th century marked a new stage in the study of Indian culture and considerably expanded the period's traditional views of the history and evolution of Buddhism and its schools.

The manuscripts confronted specialists in Buddhism with many new problems, such as the interrelation between Hinayāna and Mahāyāna, the authenticity of the Pāli canon, the reconstruction of Buddha's pre-canonical doctrine, the rise and historical destiny of various schools of northern Buddhism. Simultaneously, a new branch of Oriental studies—Central Asian philology—came into being, with the discovery of two previously unknown languages, Khotanese (Śaka) and Tokharian, and of new types of ancient Indian writing (the upright and slanting Central Asian Brāhmī alphabets).

The expeditions of P. Pelliot, A. Stein, A. Grünwedel, K. Otani, and other scholars yielded rich collections of Sanskrit and Khotanese Buddhist texts. By now a large part of these manuscripts has been published and studied.

Russian Orientalists, too, made a fundamental contribution to the study of the history of Central Asian culture. Suffice it to mention the expeditions of S. Oldenburg, B. Klements and M. Berezovsky, and the work of N. Petrovsky and N. Krotkov. As a result of their efforts, the Russian Academy of Sciences came to possess a superior collection of Buddhist texts in Sanskrit and Khotanese, mostly from Kashgar and Khotan. Credit for compiling this manuscript collection goes largely to N. Petrovsky.¹

Today these manuscripts are deposited at the Leningrad Department of the Institute of the Peoples of Asia, USSR Academy of Sciences.² Both in scope and value, this fund is probably on a par with the London, Paris, Berlin and Tokyo collections. Unfortunately, specialists in the field still know too little about it, with the exception of certain manuscripts and fragments which were published way back, at the end of the 19th and the beginning of the 20th century; these include some famous texts, e.g., fragments from the Prakrit Dhammapada in Kharoṣṭhī writing,³ the Kāśyapa-parivarta,⁴ the Khotanese Manuscript "E".⁵

Academician S. Oldenburg, an enthusiastic pioneer in the field of studying Buddhist manuscripts and Central Asian variants of Indian writing, succeeded in identifying a number of Sanskrit Buddhist texts, which he published in the Bulletin of the Oriental Department of the Russian Archaeological Society. Altogether, he published more than 30 fragments from

¹ For greater detail see S. Oldenburg, Pamyati K. Petrovskogo (1837-1908), Zapisky Vostochnogo otdeleniya Imperatorskogo Rossiyskogo Archeologicheskogo Obshchestva (S. Oldenburg, *Memoirs of the Oriental Department of the Russian Archaeological Society*), Vol. 20 (further referred to as *ZVOTRAO*).

² M. Zozobyeva-Desyatovskaya, E. Tyomkin, Rukopisi Zentracho—aziatskogo fonda (Manuscripts from Central-Asian Fund), "Vostokovedniye fondi krupneyshih bibliotek Sovetskogo Soyuza" (Oriental Funds of the main Libraries of the USSR), M. 1963, p. 50-51.

³ S. Oldenburg, Predvaritel'naya Zametka o buddiyskoi rukopisi napisannoi pismenami kharoṣṭhī (Preliminary note on Buddhist manuscript written in Kharoṣṭhī), St. ptg. 1897. See also J. Brough, *The Gāndhāri Dharmapada*, Oxford, 1962; in this work the author drew on the manuscript deposited at the Leningrad Department of the Institute of the Peoples of Asia.

⁴ A. Stäel-Holstein, *The Kāśyapa-parivarta*, Shanghai, 1926.

⁵ E. Leumann, M. Leumann, Das nordarische (sakische) Lehrgedicht des Buddhismus,—*"Abhandlungen für die Kunde des Morgenlandes"*, Bk XX, Leipzig, 1933-1936.

Petrovsky's collection.⁶ The publications of Oldenburg and his colleagues, N. Mironov and A. Stäel-Holstein,⁷ introduced new important data, which were highly appraised by scholars, and drew the attention of specialists in this field (E. Leumann, L. Finot, S. Levi, H. Kern, B. Nanjio and others) to Petrovsky's collection.

Regrettably enough, Oldenburg's work was not continued, and the Leningrad collection was neglected until the early 1950's, when the young gifted Orientalist V. S. Vorobyov-Desyatovsky embarked on his studies. He was actually the first to undertake the sorting out and classification of the texts and to compile the first inventory and preliminary catalogue giving brief paleographic descriptions. Vorobyov-Desyatovsky succeeded in identifying several important Sanskrit and Khotanese texts, some of which he was able to bring out before his untimely death.⁸

The efforts of Academician Oldenburg and the work accomplished by Vorobyov-Desyatovsky in sorting out, systematising and identifying the texts provide a reliable basis for the further study and publication of documents from the Leningrad collection.

The greater part of documents are in black Indian ink, on paper from Central Asia, in many instances primed and tinted yellow or grey. The texts are traced in upright and slanting Indian Central Asian Brāhmī of various types.

The publications of S. Oldenburg, N. Mironov, A. Stäel-Holstein, V. Vorobyov-Desyatovsky present more than 50 Buddhist texts (mostly fragments) in Sanskrit and Khotanese. This, however, is but a small part of the Leningrad collection: it can be safely asserted today that it contains a large number of new, original Buddhist texts (in Sanskrit), previously known only in Chinese and Tibetan translations. It is clear already at this stage that among the Khotanese fragments there are several texts previously unknown in any form.

At the same time, the Leningrad collection comprises important texts whose existence has long been known but which have remained unpublished. This refers above all to the oldest extant copy of the *Saddharmapuṇḍarika* (the so-called McCartney manuscript)—a poṭhi-type manuscript of 280 folios, 56 × 17 cm., in ornamental uncial upright Central Asian Brāhmī. H. Kern drew on parts of this copy when he published the *Saddharmapuṇḍarika*.⁹ The McCartney manuscript, however, is far from the only version of this sūtra in the Leningrad collection, which contains approxi-

⁶ S. Oldenburg, *Kashgarskaya rukopis V. Petrovskogo* (Kashgar manuscript from Petrovsky) (collection) *ŽVOTRAO*, Vol. 7, 1892, pp. 81-82.

⁷ K. Kashgarskim buddhiskim tekstam (On the Buddhist texts from Kashgar), Vol. 8, 1893-1897, pp. 152-153.

⁸ *Eje po povodu kashgarskih buddiyskih tekstov* (Once more in the buddhist texts from Kashgar), *ibid.* p. 349-351, *Otrivki Kashgarskih i sanskritskih rukopisei iz Sobraniya N. Petrovskogo* (Fragments of the Kashgar and Sanscrit Manuscripts from the collection of N. Petrovsky), Vol. II, 1897-1898, pp. 207-264; *Otrivki Kashgarskih i Sanskritskih rukopisei iz Sobraniya N. Petrovskogo* (Fragments of the Kashgar and Sanskrit manuscripts from the collection of N. Petrovsky), Vol. 15, 1902-1903, pp. 113-122.

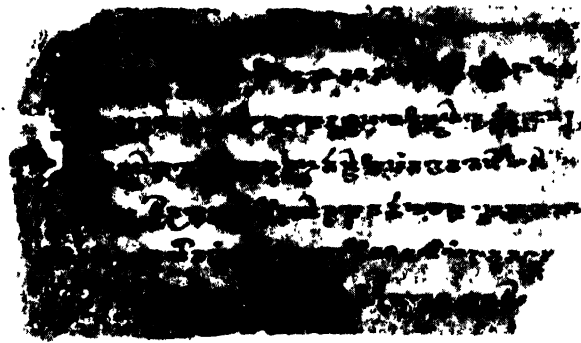
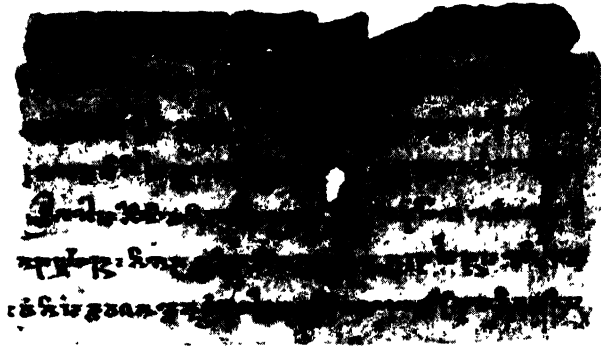
⁹ N. Mironov, *Tz rukopisnih materialov ikspedizii M. Berezovskogo v Kuču* (from the manuscripts' materials found by Beresovsky's expedition in Kucha), *Tzvestiya Tmperatorskoi Akademii Nauk* (Memoirs of the Russian Academy of Science), S-pt. 1909, pp. 547-562.

¹⁰ V. Vorobyev-Desyatovski, *Novii listi saksnoi rukopisi E* (New folios of the Śāka Manuscript "E"), *Kratkie soobzheniya instituta Vostokovedeniya* Vol. XVI, M. 1955, pp. 68-71; *ibid.*, *Vnov Naideniye listi rukopisei Kashyapapariavarta* (New Folios of Kashyapapariavarta manuscript), *"Rocznik Orientalistyczny"*, Vol. XXI, 1957, pp. 491-500; *ibid.*, *Pamyatniki zentralno-aziatskoi pismenosti* (written central-asian texts), *Ucheniye zapiski instituta Vostokovedeniya* (Memoirs of the Institute of Oriental Studies), Vol. XVI, pp. 280-308.

¹¹ H. Kern, B. Nanjio, *Saddharmapuṇḍarika* (*Bibliotheca Buddhica* X), S-pt. 1908-1912.



Unknown fragment of Samādhiraṃasūtra from Central Asia



Two unknown fragments of Mahāyana Mahāpativivānasūtra
from Petrovsky's collection (Central Asia)

NEW BUDDHIST TEXTS FROM CENTRAL ASIA]



FIG. 2



Fragments of the Buddhist manuscripts from Zang-Tepe

NEW BUDDHIST TEXTS FROM CENTRAL ASIA]



Entrance to the cave (Buddhist monastery at Kara-tepe)

ON BUDDHIST STUDIES IN THE USSR]



Buddhist Kharosthi Inscription on the pottery (Buddhist monastery at Kara-tepe

ON BUDDHIST STUDIES IN THE USSR]



Fragment of the wall-paintings (Buddhist monastery at Ajina-tepe)



Fragment of the wall-paintings (Buddhist monastery at Ajina-tepe)



Buddha in Nirvāṇa. Buddhist monastery at Ajina-tepe¹

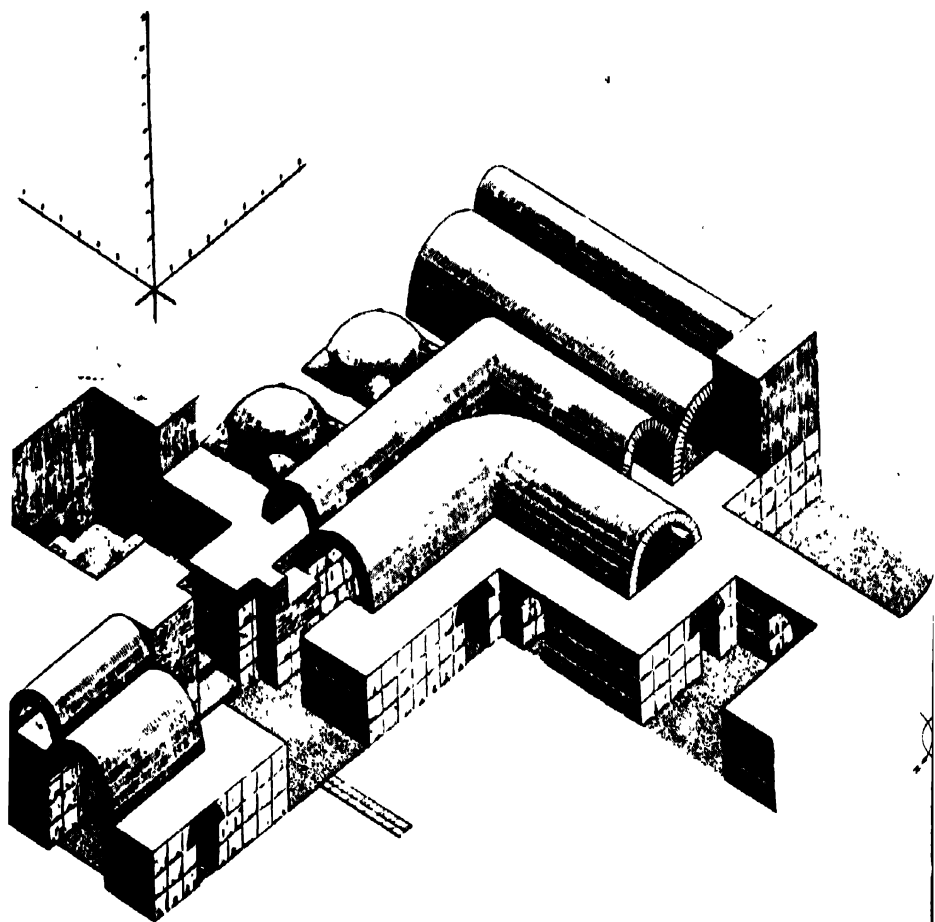


Buddhist Stone relief from Jermer



Buddhist stupa (Buddhist monastery at Ajina-tepe)

ON BUDDHIST STUDIES IN THE USSR]



Buddhist Monastery at Ajina-tepe (Reconstruction by A. Koustantinov)

ON BUDDHIST STUDIES IN THE USSR]

mately 100 other fragments of different Saddharmapuṇḍarika copies, unknown to the scholars who published this sūtra. Work to prepare for publication of the McCartney manuscript and the Saddharmapuṇḍarika fragments is already under way.¹⁰ They will presumably be of great help to students of Buddhism.

Another unique specimen is the Kāśyapaparivarta manuscript in Sanskrit, so far known only from Stäel-Holstein's transliteration.¹¹ A facsimile edition of this important Buddhist work will undoubtedly stimulate fresh interest in it.

Of great value are the unpublished fragments of the Śārdūlakarṇāvadāna, their texts differing markedly from the Nepalese version published by E. Cowell and R. Neil.¹² Academician Oldenburg at one time intended to publish these texts.

Worthy of notice among the Khotanese texts are new folios of the Manuscript "E"¹³ and some previously unpublished fragments (19 folios) of the Saṅghāṭasūtra, which have been prepared for the press by L. Gertsenberg of Leningrad.¹⁴

There are also good reasons in favour of publishing a facsimile edition of several Khotanese texts, known only from E. Leumann's transliteration.¹⁵

And yet the greater part of Central Asian documents from the Leningrad collection have not been identified and studied so far, although the fund obviously contains many new texts of the dhāraṇī type; fragments of the Sanskrit Vinaya; Prajñāpāramitā and Avadāna texts; fragments of the major Mahāyāna sūtras, as well as fragments of sūtras and business documents in Khotanese.

The first steps taken to resume the study of the Leningrad collection have already produced tangible results.¹⁶ We would like to mention some of them in this paper.

Until recently scholars were familiar with only one version of the Sanskrit text of the Dharmaśāstra, from Indikutśahri (one folio, 32 × 7 cm., bearing 32 lines); it was published by H. Stönnner.¹⁷ Now we know that

¹⁰ G. M. Bongard-Levin, E. N. Tyomkin, Fragment of an Unknown Manuscript of the Saddharmapuṇḍarika from N. F. Petrovsky Collection,—"Indo-Iranian Journal", Vol. VIII, No. 4, 1965, pp. 268-274. See also Akira Yuyama, Supplementary Remarks on "Fragment of an Unknown Manuscript of the Saddharmapuṇḍarika from N. F. Petrovsky Collection" by G. M. Bongard-Levin and E. N. Tyomkin,—"Indo-Iranian Journal", Vol. IX, No. 2, 1966, pp. 85-112. The text of the fragment corresponds to p. 105 ff. of H. Kern's publication.

¹¹ A recent translation of the text was made by Weller after the Stäel-Holstein edition (F. Weller, *Zum Kāśyapaparivarta*, Berlin, 1965).

¹² *The Divyāvadāna, A Collection of Early Buddhist Legends*, ed. by E. B. Cowell and R. A. Neil, Cambridge, 1886, pp. 611-659.

¹³ V. Vorobyev-Desyatovskiy, M. Vorobyeva-Desyatovskaya, *Skazanie o Bhadre* (Story on Bhadra), M., 1965.

¹⁴ L. G. Gerzenberg, *Novie listi Khotanosakstoi Sangatasutra* (New folios of the Khotanese Sangatasutra), (currently in the press). These folios belong to a manuscript which differs from that published by S. Konow (S. Konow, *Saka Studies*, Oslo, 1932).

¹⁵ For example, Jñānolka-dhāraṇī (E. Leumann, *Buddhistische Literatur, Nordarisch und Deutsch*, Teil I, Nebenstücke, Leipzig, 1920, SS. 157-164) and Adhyardhaśatika Prajñāpāramitā (E. Leumann, *Zur nordarischen Sprache und Literatur*, Strassburg, 1912, SS. 84-99).

¹⁶ Apart from publications of isolated fragments mentioned in the present paper, see G. M. Bongard-Levin, M. T. Vorobyeva-Desyatovskaya, E. N. Tyomkin, *Novie Sanskritskie dokumenty iz Zentralnoi Azii* (New Sanskrit texts from Central Asia), *Programma nauchnoi Koufezenzii po yezikani Tudii, Pakistana, Nepala i Zeilona* (Programme of the conference on the study of the languages of India, Pakistan and Ceylon), M. 1965; by the same authors, *Ob isledovanii pamyatnikov indiskoi pismenosti iz Zentralnoi Azii* (On the study of the Indian texts from the Central Asia). This article will shortly appear in the F. I. Shcherbatkov memorial collection printed in Ulan-Ude.

¹⁷ H. Stönnner, *Zentralasiatische Sanskrittexte in Brahmschrift aus Idikutśahri*, *SPAW*, 1904, XLIV, Ss. 1282-1287.

the Leningrad collection includes the full text of another Dharmaśarīra version, differing from the published one both in its content and size; moreover, the colophon is preserved. The text is inscribed in black Indian ink on five folios of yellowish paper, 36.5 × 8.3 cm., in upright Central Asian Brāhmī, with four lines on each side of every folio. The Dharmaśarīra from the Leningrad collection contains a short list of the basic Buddhist categories and reveals direct analogies with works of the Dharmasaṅgraha and Mahāvvyutpatti type.¹⁸

The specific importance of this document is still further enhanced by the recent find of a fragment of the Khotanese version of the Dharmaśarīra (three folios, recto and verso). Paleographic analysis suggests that it dates from the 7th or 8th century A.D. This text, although it shows traces of affinity with H. Stöner's Sanskrit text, on the whole cannot be regarded as the latter's Khotanese version. The Khotanese text is much closer to the abovementioned manuscript of the Sanskrit Dharmaśarīra deposited at the Leningrad Department of the Institute of the People of Asia—but it does not tally completely with that version either. It can be assumed that this is a fragment of the Khotanese text of the Dharmaśarīra—a translation of another, as yet unknown, version of the Sanskrit original which nevertheless is rather close to the Leningrad manuscript.

The Khotanese version, having as it does a closely corresponding Sanskrit original, is of the utmost importance also for the study of the Khotanese language, above all its vocabulary. The text contains several new Khotanese words, which do not occur in the hitherto analysed texts.¹⁹

Among the Buddhist Sanskrit fragments there is one folio (recto and verso) retaining the colophon of the Sanskrit original of the Nagaropamasūtra, a work previously known only in a Chinese translation, and a small fragment (one folio, recto and verso) of the Prātimokṣasūtra,²⁰ which makes it possible to fill in some of the gaps in the text published by L. Finot.²¹ Mention should also be made of the fragment from the Samādhirājasūtra, an important Mahāyāna sūtra. In several instances the fragment gives an alternative reading compared with the text published by N. Dutt.²²

In the imposing catalogue of texts of the dhāraṇī type, there stands out a section of the Sanskrit Vajrapāṇisumukhanāmādhāraṇī; previously it was only known from Chinese, Tibetan and Khotanese translations and the Sanskrit original was believed to be lost.²³ The Sanskrit text is all the more valuable since it materially helps to understand the Khotanese version. Collation of the Sanskrit original with translations makes it possible to tackle the reconstruction of the original text and to elucidate the evolution of its various versions.

Of exceptional importance are six Sanskrit fragments of the Mahāyāna Mahāparinirvāṇasūtra, a prominent work of the Buddhist canon. V. S.

¹⁸ This valuable manuscript is being prepared for publication by the authors of the present paper.

¹⁹ An article by the present writers, offering the Khotanese text, its translation and a glossary, will soon appear in the "Indo-Iranian Journal". Considerable help in interpreting the meaning of several Khotanese words was rendered by Professor H. Bailey; we take this opportunity to convey our sincere appreciation of his help.

²⁰ The text treats of a category of pārājika—a monk whose faults and sinful deeds made him liable to be expelled from the Saṅgha. The text deals with expulsion for stealing.

²¹ M. Louis Finot, *Le Prātimokṣasūtra des Sarvastivādins*, JA, 1913, tome II, p. 477.

²² The fragment discovered corresponds to chapter 27 of the Gilgit version of this sūtra. See Gilgit Manuscripts, Vol. II, pt. II, ed. by N. Dutt, Calcutta, 1953, pp. 220-223.

²³ See G. M. Bongard-Levin, M. T. Vorobyeva-Desyatovskaya, E. N. Tyomkin, A Fragment of the Sanskrit Sumukhadhāraṇī, "Indo-Iranian Journal", Vol. X, 2/3, 1967, pp. 150-153.

Vorobyov-Desyatovsky was the first to establish that some of these fragments from the Leningrad collection belonged to the Mahāparinirvāṇasūtra.

Before that, scholars knew only one Sanskrit fragment of this sūtra, published by R. Höernle in 1916.²⁴ Other Sanskrit fragments of the sūtra, discovered by the third and fourth German expeditions in Turfan and published by E. Waldschmidt,²⁵ on the whole correspond to the Pāli Hinayāna version and form part of the Sanskrit canon of the Sarvāstivādins. The six fragments from Leningrad are of unique value, especially in the context of the problem of the relationship between the Mahāyāna and Hinayāna canons.

The Mahāyāna Mahāparinirvāṇasūtra was widely popular, as attested by its Tibetan and numerous Chinese translations, and also by the evidence of the Chinese sources that the Indian scholar Dharmakṣema made a special journey to Khotan to look for the full text of this sūtra.²⁶

The attempts to collate the new fragments with their Tibetan and Chinese translations have been crowned with success and it is now possible to undertake the reconstruction of the full Sanskrit text of these fragments.²⁷ The fragments are inscribed on grey paper in black Indian ink, in slanting Brāhmī of the transitional type (from the Indian to the Central Asian). One of the fragments repeatedly mentions the name of the sūtra, and, moreover, bears the colophon of a section entitled "End of second section entitled 'Unperishable Body of Vajra'"). The text offers the Mahāyāna interpretation of several episodes from Buddha's life (e.g., his meeting with Cuṇḍa) and of certain concepts of the Buddhist doctrine. The fragments from Leningrad radically differ from the well-known Pāli version and contain new material, indispensable for studying the Mahāyāna doctrine.

The six fragments of the Mahāyāna Mahāparinirvāṇasūtra are currently prepared for the press. They are likely to command considerable attention among students of Buddhism.

In this short paper mention has been made only of some Buddhist texts in Sanskrit and in Khotanese which are now prepared for publication. Ahead lie painstaking, laborious efforts to identify, study and publish Buddhist texts from Leningrad's Central Asian fund. It is to be hoped that these publications will introduce much that is new into our present views of Indian culture, Buddhism and Buddhist literature and will help to solve the focal problems of Buddhist studies.

²⁴ R. Höernle, *Manuscript Remains of Buddhist Literature*, Vol. I, Oxford, 1916, pp. 93-97; see also Nakamura Hajime, *A Critical Survey of Mahāyāna and Esoteric Buddhism chiefly based upon Japanese Studies*, "Acta Asiatica", Vol. VII, Tokyo, 1964, pp. 49-53.

²⁵ E. Waldschmidt, *Das Mahāparinirvāṇasūtra*,—"Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin", Bk. I-III, 1950-1951.

²⁶ See P. C. Bagchi, *India and Central Asia*, Calcutta, 1955, pp. 109-110.

²⁷ The authors wish to make use of this opportunity to convey their sincere gratitude to M. I. Vorobyova-Desyatovskaya and L. N. Menshikov for assistance in juxtaposing Sanskrit texts with Tibetan and Chinese translations. Considerable help in interpreting several intricate Sanskrit passages was rendered by Dr. J. D. Dirsekera, a prominent authority on the subject, during G. M. Bongard-Levin's scientific mission to Ceylon in 1966.

RHYTHM IN UNEVEN SYLLABIC METRES IN SANSKRIT

AMULYA DHAN MUKHERJI

Although syllabic metres in Classical Sanskrit are mostly composed of verses or lines of uniform length and structure, quite a fair number of Sanskrit syllabic metres deviate from the usual practice. They are called either *Ardhasamavṛtta* or *Viśamavṛtta* metres according as two closely similar patterns are repeated respectively in the odd and in the even lines of the stanza, or no particular pattern is repeated in any of the lines at all. The rhythmic character of these metres and the principles of their structure are difficult to define. Since the verses are not uniform, the metres could not have been based on repetition of any particular pattern from line to line. We must look for other principles of metrical structure in order to explicate their constitution and define their rhythmic qualities.

PROTOTYPES OF UNEVEN SYLLABIC METRES

Prototypes of these uneven metres are found in Vedic poetry. Many of the Vedic hymns are written in mixed stanzas like *Bṛhati* and *Satvṛhati* in which the verses are not all of the same length and the quantitative sequence is also often different from line to line. The variations introduced in these stanzas must have been due to an aesthetic motif to break through the monotony of repetition of the same metrical type from verse to verse and to substitute a variegated pattern to accord with a more complex artistic motif proper to lyrical poetry.

This has actually been the principle that accounts for the rich variety of stanza forms in lyrical poetry in all ages and in all lands. Narrative poetry like Homer's could conveniently be composed in an unvarying verse pattern but lyrical poetry like the poetry of Sappho, Alcaeus or Pindar must always seek a variegated pattern in order to convey its subtle and complex personal emotions.

In this connection we might refer to the view that the emergence of these uneven metres was due to "contamination" or confusion and they should be considered to be hybrid metres. This does not appear to be a correct view. If there is any mix-up of patterns, such mixture was not due to carelessness or confusion. It was a deliberate mixture, as of "three fit wines in a cup", with a view to producing a special blend to accord with a particular artistic motif.

As in all lyrical metres, we must also in the case of these uneven metres look for a basic unifying principle which is set off by the element of variety symbolising the emotinal flux.

THE ARDHASAMAVṚTTA METRES

Of these uneven metres the more popular have been the *Ardhasamavṛtta*(s) or metres with alternately coequal verses. This sort of alternation of lines of different length or structure in a stanza has been a feature of many popular lyrical metres in all languages. In the *Ardhasamavṛtta* metres, the varying lines differ from the staple verses only very slightly and the deviations are limited either to the addition or omission of a syllable or to the variation in the quantity of a particular syllable. These metres do not thus unduly strain our normal expectations of metrical structure and yet suggest subtly an

emotional stress indicated in the occasional rhythmic inversion, suppression or overflow.

Among the *Ardhasamavṛtta* metres, five are more important and significant. They are

- (a) Bhadravirāj [—, —, —, —, —, — (10 syll) || —, —, —, —, —, — (11 syll) **bis**]
 (b) Mālabhāriṇī [—, —, —, —, —, — (11 syll) || —, —, —, —, —, — (12 syll) **bis**]
 (c) Puṣpitāgrā [—, —, —, —, —, — (12 syll) || —, —, —, —, —, — (13 syll) **bis**]
 (d) Sundarī or
 Viyoginī [—, —, —, —, —, — (10 syll.) || —, —, —, —, —, — (11 syll) **bis**]
 (e) Aparavaktra [—, —, —, —, —, — (11 syll.) || —, —, —, —, —, — (12 syll) **bis**]

The other *Ardhasamavṛtta* metres are less important, and it is comparatively easier to explicate their structure.

The *Ardhasamavṛtta* metres exploit only shorter lines (of 10 to 13 syllables); longer or composite verses are not amenable to the requirements of these essentially lyrical metres which have the character of "short, swallow flights of song."

THEIR CHARACTERISTICS

As has been already stated, prototypes of these metres are to be found in those Vedic metres in which verses of disparate length are combined to form stanzas. Such metres are generally recognised as lyric metres. Most of them are written in mixed stanzas consisting of a combination of octosyllabic (Gāyatrī) and dodecasyllabic (Jagatī) verses, presumably on account of the similarity of the cadence which is iambic in both Gāyatrī and Jagatī. But combinations of decasyllabic and hendecasyllabic verses also are frequent. Sometimes we have a combination of a decasyllabic (Virāj) hemistich with a hendecasyllabic (Triṣṭubh) verse on account of the identity of cadence between the two, the Virāj hemistich consisting of two pentads, — — — — —, and the Triṣṭubh verse of three members arranged as — — — — —, — — — — —, — — — — —; e.g.

priyā vo¹ nāma/huve turāṇām
 ā yat tṛpan, maruto/vāvasānāḥ

Practically all the *Ardhasamavṛtta* metres in Sanskrit are of this type, being combinations of decasyllabic verses with hendecasyllabics (e.g. Bhadravirāj and Sundarī), or of hendecasyllabics with dodecasyllabics (e.g. Mālabhāriṇī and Aparavaktra). Sometimes we have even combinations of verses of twelve syllables with verses of thirteen syllables (e.g. Puṣpitāgrā). But the latter varieties may, however, be considered to be only expanded forms of the former, the expansion being effected by resolution of one or two longa into breves.

THEIR ORIGIN

No finality of opinion has yet been reached among scholars regarding the archetypal verse form from which *Ardhasamavṛtta* metres may have originated. Some consider that they originated from Triṣṭubh. Others think that Jagatī was the ultimate archetype. As most of the *Ardhasamavṛtta* metres have at least one line of eleven syllables, one might be inclined to think that it was the Triṣṭubh verse from which these metres originated.

¹ 'O' is to be read as short here.

WAS TRISTUBH THE ARCHETYPE ?

There are however difficulties about accepting this view. Although no very rigid sequence of longa and breves was insisted on in Vedic Trīṣṭubh and in early Epic Trīṣṭubh, certain features were almost always considered essential in Trīṣṭubh verse. The cadence, constituted by the last four syllables, was to be a trochaic metron (— ◡ — ◡), and the opening, constituted by the first four syllables, an iambic metron (◡ — ◡ —). The break, that is, the intermediate trio of elements between the opening and the cadence, could be an anapaest or a dactyl, sometimes even a cretic or, very rarely, a tribrach. Though minor variations are occasionally found in Vedic and Epic Trīṣṭubh, these features are invariably to be found in the recognised form of the Trīṣṭubh in the later Epic and Classical ages. This would be evident from the typical illustrations given below. The rhythmical character of Trīṣṭubh verse was intimately connected with these special features.

Ahaṁ rāṣṭrī / saṁgama / nī vasūnām

Ahaṁ rūdrā / ya dhanu / rātanomī

brahmadviṣe / śarave / hantāvā u

Yam kāmāye / tam tamug/ram kṛṇomi }

Rg-Veda, X, 125

na caiva rā/jātra vi/śaṅkanīyo

daivam hi ko/ tikrami/tum samarthāḥ }

Rāmāyaṇa, II, XIX, 22

Amī vedim/paritaḥ/klptadhiṣṇyaḥ

samidvantaḥ/prāntasam/stirṇadarbhā }

Sakuntalā, IV, 84

mahāt sevām/dvāramā/hurvimukteḥ

mahāntaste/samācit/taḥ praśāntāḥ }

Bhāgavat, 5/5/2

Yasyāsti vit/tam sa na/raḥ kulinaḥ

sa paṇḍitaḥ/sa śruta/vān guṇajñāḥ }

Bhartṛhari

We might, therefore, conclude that, as a rule, the 2nd and the 4th as well as the 8th and the 10th syllables in a Trīṣṭubh verse should be long, while the 6th and the 9th are to be short. In the Classical Age when regularity of sequence was strictly observed, the Trīṣṭubh form was variously designated, according to the order of sequence of the longa and breves, as Indravajrā or Upendravajrā or Śālinī or Vātormī. In all of them the essentials of Trīṣṭubh rhythm are present as would be evident from a scrutiny of the following illustrations:

Āstyuttaras/yām diśi/ḍevatātṁā (Kumar, I, 1)

Himālayo/nāma na/gādhirājaḥ (Kumar, I, 1)

Jyā-nīrghoṣaiḥ/kṣobhāyā/māsā sīmhan (Raghu, IX, 64)

Samsāre'smin/duṛitaṁ/hanti pumsām (Chandomañjari)

The probable archetype—JAGATĪ

Most probably these metres are derived ultimately from *Jagati*, not from *Triṣṭubh*. The real difference between *Triṣṭubh* and *Jagati* is not that the latter is longer by just one syllable but that it has a different rhythmical quality. It is predominantly iambic; it closes with a diiambus. As a rule, all the even syllables in a *Jagati* verse (— — — — — | — — — — — or — — — — — — — — — — — | — — — — —) excepting the 6th are long; the sixth, occurring about the middle of the verse, is a short syllable that marks the break. But the most important feature of a *Jagati* verse is that the cadence, consisting of the last five syllables, constitutes a pentad with a distinctive character, the syllables being alternately long and short, the total moric value of the entire cadence being eight instants. Though *Jagati* is not as frequent as the *Triṣṭubh*, there is a fair proportion of *Jagati* verses in *Rg-veda* to warrant a conclusion that it is not a mere derivative from *Triṣṭubh* but an independent type with its own rhythmic features. It is a moot point whether it is one of the original Indo-Iranian metrical types, though there is in the 5th *Gāthā* of the *Avesta* a verse-type with 12 syllables and a caesura after the 7th. There is a tradition that the *Jagati* verse was created by *Viśvedevas* (all-gods), from which one might conclude that it was probably the latest and the most flexible of Vedic metres, suited to all purposes. Interpreting the term '*Jagati*' from its literal meaning, one might conclude that the verse was given this particular name on account of its dynamic quality and the universality of its scope.

There are several reasons why the Jagatī metre should be looked upon as the ultimate prototype of these *Ardhasamavṛtta* metres.

Firstly, most of these metres like *Sundarī* and *Aparavaktra* have an evident iambic rhythm. Even in metres like Bhadravirāj, Mālabhāriṇī and Puṣpitāgrā the rhythm is really iambic though the lines are rounded off with an additional longum at the close.

But the more important argument is that the *Ardhasamavṛtta* metres being essentially lyrical in character, their prototype must be the Jagatī. The argument is supported by the following considerations.

These *Ardhasamavṛtta* metres were originally used only as tag metres at the end of cantos as a sort of lyrical finale to a passage of narrative poetry written continuously in a standard metre.

That these metres were essentially lyrical would also be evident from the fact that ultimately they develop and merge into the wellknown lyrical types like *Vaitāliya* and *Aupacchandāsika* metres, very probably based on the rhythm of indigenous folk songs in which the sequence of longs and shorts is of far less importance than the moric values of constituent measures. In the *Ardhasamavṛtta* metres which are halfway between the traditional syllabic and the neoteric moric metres, the verses actually consist of measures, and the total quantitative values of these measures are, as we shall find, no less important than the sequence of longs and shorts.

In Vedic prosody the lyrical metres *par excellence* (*Pragātha* etc.) were written in mixed stanzas composed of verses of 8 and 12 syllables, that is to say, of Gāyatrī and Jagatī verses with a predominant iambic rhythm. The Jagatī being the longer line may be considered the staple line in these lyrical stanzas. As we have already noted, the cadence in Jagatī is equivalent to a lyrical measure of 8 instants, and the opening and the break in at least some of the popular varieties of Jagatī are equivalent to the standard lyrical measures of 8 and 4 instants. A typical Jagatī verse with the scheme

$$\begin{array}{c} \cup - \cup - \mid \cup \cup - \mid - \cup - \cup - \\ \text{or} \\ \cup - \cup - \mid - \cup \cup \mid - \cup - \cup - \end{array}$$

corresponds in most cases to a lyrical pattern with measures arranged as 8+4+8 or as (4+4)+4+8 or even as 6+4+8.

Like Jagatī, *Ardhasamavṛtta* metres also are composed of verses constituted with measures of 8 instants or any of its component sub-measures of 4 or 6 or 2 instants. Variations usual in lyrics are introduced and these underlie the pattern for the stanza. These variations are based on musical processes like syncopation and prolongation, and involve prosodic processes like acephaly, catalexis and the use of hypermetric syllables. For instance, the staple (or the posterior) verse in *Sundarī* (or *Viyoginī*) consists of elements arranged as

$$\cup \cup -, \cup \cup \mid - \cup - \cup -$$

as in *Vasudhālingana-dhūsarastanī* (Kumar, iv, 4). That is to say that it is constituted with measures arranged as (4+4)+8, or 8+8. If a hypermetric longum be added to it by way of musical prolongation, we shall have the posterior line in *Mālabharīṇī* with the scheme $\cup \cup -, \cup \cup \mid - \cup - \cup -$, that is, with measures arranged as 8+10. This is how the verses in *Ardhasamavṛtta* metres are constituted. But along with the moric scheme, there is also a patterned sequence of elements according to a rhythmic idea and plan. For instance, the staple verse in *Sundarī* starts with a quick and rising foot, viz. an anapest; it is followed by an inversion of rhythm, marking

a sort of 'break' in the form of a trochee, a falling foot; then the verse settles down to a succession of three slowly rising feet, viz. iambs. The simultaneity of the two metrical motifs, one moric and the other sequential, gives the metre its special quality.

The basic type—Śuddhāvīrāj

A close scrutiny of the structure of these Ardhasamavṛtta metres would show that they have evolved from a decasyllabic line. Lines of 11, 12 or 13 syllables in these metres are all expanded or enlarged forms or variants of a primary type, a verse of ten syllables, which may be designated as a Virāj pāda. 'Virāj' is a symbolical name for number ten, and a Virāj verse contains ten syllables. But in prosody Virāj means sometimes a metre defective by two syllables. A Virāj verse may, therefore, be taken to mean a defective or shortened Jagatī verse, having 10 syllables and the typical Jagatī rhythm.

These are also the prosodic features of the basic metrical type from which the Ardhasamavṛtta metres appear to have developed. This is the type called *Śuddhāvīrāj* (pure, unmixed or basic Virāj) by Pingala and other prosodists. The scheme (— — — ◡ ◡ — ◡ — ◡ —) is well illustrated in the following stanza:

Viśvaṁ tiṣṭhati kūṣikotāre
vaktre yasyā śārasvatī śadā
aśmadvaṁśāpitāmāho gūrur
brahmā śuddhāvīrāt pūnātu nāḥ (Halāyudha)

The verse is called Śuddhāvīrāj probably because it is to be distinguished from other metrical types associated with the term Virāj (e.g. Dvipadā Virāj, Bhadravīrāj etc.). It may have been the original decasyllabic type as the epithet 'Śuddha' probably implies. The other kindred types may have evolved later.

History of the evolution of Śuddhāvīrāj

The actual history of the evolution of Śuddhāvīrāj is difficult to trace as the missing links are too many. It may be suggested that Śuddhāvīrāj is an enlargement of the epic Anuṣṭubh, with an opening — — — and a cadence ◡ — ◡ — ◡ —, an additional iambus having been tacked to the traditional diiambic form of the Anuṣṭubh cadence: The second, the third and the fourth lines of the stanza quoted above may lend support to this view.

But the very first line of the same stanza suggests a different history. The last five syllables there and in the Ardhasamavṛtta metres like Sundarī and Aparavaktra, derived directly from Śuddhāvīrāj, appear to have a cohesive quality and constitute a sort of musical phrase. This would be apparent from the following illustrations:

Example of SUNDARĪ or VIYOGINĪ

āthā-sā pūnā/revā viḥvalā
vaśudhālīṅgāna-/dhūsarastanī
vilālāpa vi/kirṇa-mūrdhajā
sāmāduḥkhāmivā/kurvātī sthālīm (Kumār, iv, 4).

Example of APARAVAKTRA

sphuṭa-sumadhūra-/veṇuḡitibhīs
 tāmaparāvaktrāmā/vetyā mādhavām
 mṛgayuvātiga/ṇai sāmāṁ sthitā
 vraja-vānitā dhṛta/cittavibhramāḥ (Chandomañjarī)

Moreover the last five syllables are quantitatively equivalent to 8 morae and thus constitute a lyrical measure, a component of lyrical metres as all the Ardhasamavṛtta metres are.

The evolution of decasyllabic Śuddhvirāj from dodecasyllabic Jagatī must have been due to a process called lyrical syncopation. It has been noted by scholars in classics that in lyric iambs and trocheics in Greek and Latin prosody a short element was often omitted. Sometimes this occurred in two consecutive feet, so that a diiambus (— — —) or a ditrochee (— — —) was reduced to a spondee (— —). This was probably induced by protraction of long elements and the requirements of regularity in a lyrical structure.

At a period much later than the Vedic when even in sacred music moric values of measures came to be regarded as more important than the number or disposition of long and short syllables, it must have been felt that Jagatī with its tripartite scheme—4+3+5 or 5+2+5—was not quite suited to music. Certain changes followed; the opening — — — became — — by a process of lyrical syncopation; the later aneeps became longa; so that — — —, — — —/— — — became ultimately — —, — — —/— — —, a bipartite verse, of which each part was quantitatively equal to a measure of 8 morae. This is Śuddhvirāj, the primal type from which the various Ardhasamavṛtta metres have evolved.

Rhythmic features of ŚUDDHAVIRĀJ

Each part of Śuddhvirāj is a pentad, consisting of three longa and two breves. The sequence in the second pentad or the cadence is the same as in Greek hypo-dochmiac, longs and shorts being positioned alternately (— — —). The first pentad actually consists of two members, a spondee and a dactyl, each equivalent to 4 morae. The second member, a dactyl, is the same as the break in the parent metre Jagatī. The quantitative scheme is (4+4)+8=16, a formula popular in moric metres and in music.

The disposition of longs and shorts in Śuddhvirāj induces a rhythmic flow that starts with a slow and solemn spondee, then quickly changes to a falling trochee and then settles down to a series of slowly rising iambs. The pattern may thus be analysed into a sequence — —, — —, — —, — —, — —. Its structural affinity with the *Vamśasthā* group of metres, particularly with *Indravamśā* (a later form of Jagatī) is noticeable.

The rhythmic flow of Śuddhvirāj appears to be different from that of Vedic Dvipadā Virāj in which a diambic opening is followed by an anapaestic or cretic break with a rest in between the syllables (— —) and a trochaic cadence. Dvipadā Virāj with its scheme — — —/— — —/— — — is obviously derived from Triṣṭubh.

Śuddhvirāj was probably a post-Vedic development when metrical structure came to be influenced by time-measures of popular music.

Evolution of ARDHASAMAVṚTTA metres from ŚUDDHAVIRĀJ

Accepting the proposition that the primary metrical pattern from which

Ardhasamavṛtta metres have evolved was a decasyllabic verse called Śuddhvirāj, a lyrical and syncopated form of Jagati, we can trace the evolution of the various Ardhasamavṛtta metres recognised by prosodists. Being essentially lyrical and hence tending to modulation from line to line, they are written in stanzas in which the odd (the first and the third) lines, called the prior verse, slightly differ in length or structure or both from the even (the second and the fourth) lines, called the posterior verse.

The first group

(a) BHADRAVIRĀJ

The first of these metres to develop from the basic type was probably Bhadravirāj or the auspicious Virāj or the Virāj stanza as chanted on holy and auspicious occasions. The type is easily obtained by adding a longum to Śuddhvirāj for the sake of lyrical prolongation of the cadence in the staple line, that is, the posterior verse, and putting the acephalous form of the staple line in the prior verse. The hemistich of the Bhadravirāj stanza, therefore, runs thus:

prior verse: —, — — — / — — — — (10 syllables) = 16 morae

posterior verse: — — — — — / — — — — (11 syllables) = 18 morae
The staple verse consists of two parts or measures of 8 and 10 morae respectively, and its acephalous form, the prior verse, of two parts or measures of 6 and 10 morae respectively. Analysed into feet, the quantitative scheme for the two lines would be

$$(2+4) + (3+3+4) = 6+10$$

$$(4+4) + (3+3+4) = 8+10$$

It may be noted here that that formulae above serve for a large number of verses in NIA languages like Bengali.

The following is a typical Bhadravirāj stanza:

Yatpādātā/le cakāsti cakraṁ
hastē vā kulīśaṁ śārōruhāṁ vā
rājā jāgā/dekacakravartī
svacchāṁ bhadravī/rāt samāśnute'sau

The staple line in Bhadravirāj is the same as the hendecasyllable of Martial and Catullus in Latin.

From Bhadravirāj must have developed Mālabhāriṇī and the popular Puṣpitaṅgrā at a later date when resolution of longa into breves came into vogue. As quite a fair number of Puṣpitaṅgrā stanzas are found in the epics, this practice must have started long before the Classical Age, perhaps under the influence of indigenous rhythms in which such resolutions were usual.

(b) MĀLABHĀRIṆĪ

By simply resolving the first longum in each line of Bhadravirāj we can derive Mālabhāriṇī in which the prior and the posterior verses are

prior verse: — — — — — / — — — — (11 syllables) = 16 morae

posterior verse: — — — — — / — — — — (12 syllables) = 18 morae

Except for the fact that each line begins with two breves, the metre is otherwise the same as Bhadravirāj in structure and in moric value. Here is a stanza in Mālabhāriṇī.

vāsane pari/dhūsare vāsānā
 niyamaksāmāmū/khī dhṛtaikavenīḥ
 atiniṣkaru/ṇasya śuddhaśilā
 mamā dīrgham vira/hāvrataṁ vibhārtī (Śakuntalā, VII)

(c) PUṢPITĀGRĀ

Puṣpitāgrā is obtained by resolving the first two longa in each line of Bhadravirāj (or the first longum in each line of Mālabhāriṇī). The hemistich of Puṣpitāgrā, therefore, runs thus:

Prior verse: ∪ ∪ , ∪ ∪ ∪ ∪ / — ∪ — ∪ — (12 syllables) = 16 morae

Posterior verse ∪ ∪ ∪ ∪ , — ∪ ∪ / — ∪ — ∪ — (13 syllables) = 18 morae

Here is a stanza in Puṣpitāgrā:

tūragakhurāhā/tastāthāhi rēnūr
 viṭapaviṣaktajā/lādrāvālkaleṣu
 pātati pāriṇā/tārūnaprakāśaḥ
 śalabhāsamūha i/vāśramadrūmeṣu (Sakuntalā, I)

The staple (or the posterior) verse of Puṣpitāgrā is the same as the quarter-stanza of the metre *Mṛgendramukha*.

Several features of Puṣpitāgrā deserve special attention. While the cadence, consisting of the last six syllables, is the same as in Bhadravirāj and Mālabhāriṇī, the opening has an accumulation of short syllables. In the prior verse the opening consists of short syllables only, six in number, while in the posterior verse only one long syllable is positioned between the first four short syllables and the next batch of two short syllables. The metre is justly named Puṣpitāgrā (one with a flowery tip) as the opening has a soft grace and lightness on account of its many short vowels. It has been a popular metre always and is to be found in frequent use even in the epics, usually as tags. That is a clear evidence of its lyrical character. It is probably anterior to Mālabhāriṇī, an intermediate type between Bhadravirāj and Puṣpitāgrā, which may have been invented later.

The first group and their relation to AUPACCHANDASIKA

As has been already noted, these Ardhasamavṛtta metres stand halfway between the older syllabic metres with their fixed sequence and the moric metres which came into vogue later on probably under the influence of folk poetry and music. As the moric metres are found even in some of the later books of the Rāmāyaṇa and the Mahābhārata they must have actually been in vogue fairly early, at least long before the commencement of the Classical Age. These Ardhasamavṛtta metres merged later into moric types in which the total moric value of the line alone mattered in spite of slight restrictions in the use of longs and shorts in making up the line.

The particular group of Ardhasamavṛtta metres considered so far merge into the wider metre—Aupacchandasika—a moric metre in which the total quantitative values of the lines are 16 and 18, and the cadence (consisting of the six closing syllables) has a fixed sequence, — ∪ — ∪ —, the same as in Bhadravirāj, Mālabhāriṇī and Puṣpitāgrā. It is called Aupacchandasika meaning 'near to Vedic metres,' very probably because it has in its cadence the same rhythm as Bhadravirāj, a metre of Vedic origin.

Aupacchandasika is also used frequently as a tag metre in the later cantos of the Rāmāyaṇa and the Mahābhārata. It is also widely used in

iti roṣava/śadubhau tadānim
 anyōnyāṃ śapi/tau nṛpa-dvijendrāu
 sahasaiva ba/bhūvaturvidehau
 tāttulyādhiga/tā-prabhāvāvantaū

(Ayodhyā, LV, 21)

ātanvā/nām sūrārikāntā-
 -svaupacchāndasā/kām hṛdo vīnōdām
 kāmśām yō/nirjaghānā dēvō
 vāndē tām jagā/tām sthitiṁ dādhanām (Chandomañjarī).

(Chandomañjarī).

While Bhadravirāj and other Ardhasamavṛtta metres derived from it (Mālabhārīṇī and Puṣpīāgrā) add a longum to the basic type Śuddhvirāj, there are other Ardhasamavṛtta metres belonging to a different group in which there is no such tacking or protraction at the end of the verse. To this group belong Sundarī (or Vīyoginī) and Aparavaktra.

Sundarī is directly derived from Śuddhvirāj. The first longum is resolved into breves and we have the staple (or the posterior) verse of Sundarī. The prior verse of Sundarī is acephalous Śuddhvirāj with the first longum resolved into breves. The hemistich of Sundarī, therefore, runs thus:

[illegible]

An illustration of Sundarī has been given previously. It may have been an early metre, as examples may be found in the last book of the Rāmāyaṇa, though it must be admitted that portions of the last book (Uttarakāṇḍa) were composed much later than the other books. Possibly it was called Sundarī or the graceful metre on account of its opening with two initial breves. Mallinātha calls it Viyoginī. Possibly it was so called because it was felt to be specially suited to the expression of sad and tender emotions. ❀

It may be noted here that if each verse in Sundarī is enlarged by the addition of a longum, it is turned into Mālabhārini.

(Sundarī is not included in Pingala's list of metres nor is Mālabbhārīṇī. Both were probably invented at a later date, Sundarī being an intermediate type between Śuddhvirāj and Aparavaktra just as Mālabbhārīṇī is an intermediate type between Bhadravirāj and Puspitāgrā. The antiquity of Sundarī is not proved merely by its occurrence in Uttarakāṇḍa of the Rāmāyana).

Aparavaktra may be considered to have been derived from *Sundarī* by resolving the first longum in each of the verses. But it is more likely that it was derived directly from *Śuddhavarīj* by resolving the first two longa of

prior verse: u u , u u u / - u - u - (11 syllables) =
 (2+4)+8=14 morae

the very scheme of the prior verse in *Aparavaktra*. Its popularity was steady all through the Epic and the Classical Ages. The famous stanza in Kālidasa's *Śakuntalā* (Act IV)

anugata-gama/nā śakūntalā
 tarubhīriyām vana/-vāsa-bāndhubhīh
 parabhīrtavīru/taṁ kalam yāthā
 prativacanīkṛta/mebhiridrśam
 is in *Aparavaktra*.

The Second group & VAITALIYA

This group of metres, *Sundari* and *Aparavaktra*, merge ultimately in the wider metre *Vaitāliya*, a moric metre in which the total quantitative values of verses are alternately 14 and 16 and the cadence, consisting of the last five syllables, has a fixed sequence — ◡ — ◡ —, the same as in *Suddhavarāj*, *Sundari* and *Aparavaktra*. It is to be noticed that if a longum is tacked to each verse of *Vaitāliya* it becomes an *Aupacchandāsika*.

Vaitāliya, undoubtedly a metre of Prākṛt origin, finds its way into Sanskrit in the late Epic Age. Entire stanzas in *Vaitāliya* are not found in the epics, but *Vaitāliya* verses are found in association with other verses occasionally as in the following example:

iti sarvama/śeṣato mayā
 kathitaṁ sambhava/-kāraṇantu saumya
 nṛpapaṅgava/-śāpajam dvijāsyā
 dvijaśāpāca ya/tatbhūtaṁ nṛpāsyā (Rāmāyaṇa, Uttara, LVII, 21)

Here the first verse is the same as the prior verse of a *Vaitāliya* while the third is the same as the prior verse of an *Aupacchandāsika* while the 2nd and the 4th verses are the same as the posterior verse of an *Aupacchandāsika*. At the age, therefore, *Vaitāliya* had not developed into a distinct stanza type.

But it does so in the Classical Age, though Kālidāsa prefers the special type known as *Sundari* or *Viyogini*, as in *Kumārasambhaṇ* Book IV and *Raghu-vaṁśam*—Book VIII where occurs the famous stanza—

Gr̥hiṇī saci/vaḥ sakhī mithaḥ
 priya-śiṣyā lali/te kalāvidhau
 karuṇāvimu/kheṇa mṛtyunā
 haratā tvam vada/kim nā me hṛtaṁ (Raghu, VIII 67).

But the more general type, in which there is practically very little restriction about the composition of the opening, came to be established later on. Here is an example of this type of *Vaitāliya*:

kṣut-kṣiṇā-śa/rīra-saṅcayā
 vyaktibhūta-śi/rāsthīpāñjaiḥ
 keśaiḥ parū/śaistavārayo
 vaitāliyata/num vitanvate (Halāyudha)

Metricists sometimes group *Vaitāliya* proper (*Suddha Vaitāliya*) and its variants as well as *Aupacchandāsika* along with metres like *Apātatalikā* under a generic term 'Vaitāliya.' Is the term cognate with 'Vaitālika' (a bard)? Are all these metres only forms of a bardic stanza, essentially moric, in which the staple (or posterior) lines were of 16 morae and the overtural (or prior) lines were acephalous with 14 morae, the cadence usually being a sequence of alternating longs and shorts (— ◡ — ◡ — = 8

morae) and optionally having an additional longum tacked to it so that the cadence becomes 10 morae long (— ॐ — ॐ — —) ? Evidently these metres came into use on account of the influence of popular music, and represent an attempt to harmonise traditional sequences with popular tunes.

OTHER ARDHASAMAVṚTTA METRES

Other *Ardhasamavṛtta* metres catalogued in metrical treatises were very probably invented much later by versifiers seeking variety and novelty. They were never much in vogue. Most of them are really moric metres based on feet with a definite pattern and moric length.

Below is given a list of these metres with explications of their structure.

(i) In *Vegavati* the staple (posterior) verse is a *Dodhaka* (a dactylic tetrameter) with an acephalous *Dodhaka* as the prior verse. The constituent feet consist of 4 morae each.

Prior verse : ॐ ॐ,— ॐ ॐ,— ॐ ॐ,— (10 syll.) = 14 morae

Posterior verse : — ॐ ॐ,— ॐ ॐ,— ॐ ॐ,— (11 Syll.) = 16 morae

Here is an example :

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 tāva puñja-narādhipa senām
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 vegavatīm saḥate sāmāreṣu
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 prālayormimivābhimukhīm tām
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 kaḥ sakalakṣitibhṛnnivāheṣu (Halāyudha)

Vegavati, therefore, belongs to the *Vaitāliya* group, having 14 and 16 morae respectively in the prior and the posterior verses. The sequence in the last two feet constituting the cadence is that of *Apātatalikā* (— ॐ ॐ —).

(ii) *Ketumati* is only a variant of *Vegavati*, derived by anacalasis or interchange of length between the 5th and the 6th syllables in the prior verse, and correspondingly between the 6th and the 7th syllables in the posterior verse.

Prior verse : ॐ ॐ,— ॐ,— ॐ ॐ,— (10 syllables) = 14 morae

Posterior verse : —, ॐ ॐ,— ॐ,— ॐ ॐ,— (11 syllables) = 16 morae

The prior verse is best considered to be an anapaestic trimeter with anacalasis in the second foot and rounded off with a longum. The posterior verse differs from the prior only on account of a longum prefixed by way of anacrusis. The rhythmic effect is very similar to that in *Pratīlākṣarā* (ॐ,—, ॐ,—, ॐ,—, ॐ,—)

Here is an example :

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 Hṛtabhūribhūmipati-ciḥnām
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 Yūddhasahasralabdhajayalakṣmīm
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 saḥate nā ko'pi vasudhāyām
 ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ
 ketumatīm narendra tāva senām (Halāyudha)

Ketumati must have been a metre of a much later date than *Vegavati* etc. as there is no cadence corresponding to what we expect in metres of the *Vaitāliya* group, viz. a pentad with a moric value of 8.

By the time that this and similar other metres came to be used, uniformity in moric value of constituent feet had come to be accepted as the basis of metrical composition.

(iii) This metrical principle is also illustrated in *Upacitra* or *Upacitraka* where the prior and posterior verses are respectively

— — —, — — —, — — —, — — — (11 syllables) = 15 morae
— — —, — — —, — — —, — — — (11 syllables) = 16 morae

The prior verse is an anapaestic tetrameter with syncopation in the last foot while the posterior is a *Dodhaka* (dactylic tetrameter).

The prior verse is the same as in *Hariṇapluta*.

Here is an example :

— — —, — — —, — — —, — — —
mūrāvairivapustānūtām mūdām
hēmañibhāmsukā-candānā-līptām
gaganām cāpālāmilitām yāthā
śārādānīrādhārairūpacitrām

(iv) Similar are the features of *Drutamadhya* where the prior verse is a *Dodhaka* and the posterior is a *Tāmarasa*, that is, a *Dodhaka* with a resolved first foot. It runs thus:

prior verse : — — —, — — —, — — —, — — — (11 syllables) = 16 morae
posterior verse : — — —, — — —, — — —, — — — (12 syllables) = 16 morae

For example

— — —, — — —, — — —, — — —
Yadyapi śighragatir-mṛdugāmī
vāhūdhanavānapi dūḥkhamupaiti
nāṭisāyatvaritā nā cā mṛdvī
nṛpātigatīḥ kāthitā drutamādhya (Halāyudha)

(v) In *Hariṇapluta* the prior verse is an anapaestic tetrameter with syncopation in the last foot (as in *Upacitraka*) while the posterior has an additional breve prefixed by way of anacrusis.

Prior verse : — — —, — — —, — — —, — — — (11 syllables) = 15 morae
Posterior verse : — — —, — — —, — — —, — — — (12 syllables) = 16 morae

Here is an example :

— — —, — — —, — — —, — — —
sphuṭaphenācayā hariṇaplutā
balimānojnātāṭā taraṇeḥ sūtā
kalahāmsakulāravaśālīnī
vīharāto harātī smā harērmanāḥ (Chandomañjari)

(vi) In *Tavamati* the posterior line is an iambic hexameter rounded off with a longum while the prior line is only its acephalous form. The hemistich, therefore, runs thus :

prior verse : — — —, — — —, — — —, — — — (12 syllables) = $\frac{18}{19}$ morae
posterior verse : — — —, — — —, — — —, — — — (13 syllables) = 20 morae

Here is an example :

— — —, — — —, — — —, — — —
pādmakāntū kōmalē karē bibhāti
praśāmsyā matsyalāñchānām padē cā yasyāḥ
sā yāvānvitā bhaveddhanādhikā cā
sāmastā-bāndhu pūjitā priyā cā pātyuḥ

This must be a fancy metre invented at a later date.

(vii) Stanzas in which *Indravajrā* lines alternate with *Upendravajrā* or vice versa are called respectively *Akhyāniki* and *Viparītākhyāniki*.

These are also called *Upajāti* metres.

The name 'Akhyāniki' suggests that this was recognised as the narrative metre *par excellence*.

There are numerous examples of the metre in *Kumāra-sambhavaṃ*

VIṢAMAVṚTTA(S)

It is more difficult to explicate the structure of *Viṣamavṛtta(s)*, metres in which the constituent verses are of widely differing length and of extremely varying sequence of elements. To a prosodist like Brown, they are "Odes" or "wild carols seldom reducible to prosodial rules, wherein the poet follows his fancy."

This seems to be a verdict of despair. It is hardly likely that the ingenious inventors of these harmonics had no principles of rhythm to guide them and were just indulging in wild fancies that might have casually moved them to these compositions. If it were so, these metres would not have been accepted by metricians as standard types, nor would poets of recognised merit write their verses in these metres. A closer study will show that they are no more wild or fantastic than the odes of Pindar or Horace.

Three Groups

The *Viṣamavṛtta* metres may be classified into three groups :

(a) the *Udgatā* group, (b) the *Upasthita-pracupita* group, and (c) the *Padacaturūrdhva* group. Each group has its special features, and each originated differently from others.

THE UDGATĀ

By far the most important of these metres is the *Udgatā*. It has been practised by eminent poets like Aśvaghoṣa, Bhāravi and Māgha, and must have been in vogue at least since the 1st century A.D., if not earlier. These famous poets, notable for their metrical skill, could not have indulged in wild metrical compositions. Here is a stanza in *Udgatā*, quoted from Māgha's *Śiśupāla-vadham* :

Ū̄ ā̄thā tatrā pāṇḍutanayenā
 śāḍasi vihitāṃ mād̄hud̄viṣaḥ
 mānamasahata nā cedipatiḥ
 pārāv̄rdd̄himatsarī mānō hi māninām (Canto XV)

The metrical pattern is, therefore, as follows :

1st line or verse (a) : Ū̄ — Ū̄ — Ū̄ Ū̄ — Ū̄ (10 syllables)
 2nd line or verse (b) : Ū̄ Ū̄ Ū̄ Ū̄ — Ū̄ — Ū̄ (10 syllables)
 3rd line or verse (c) : — Ū̄ Ū̄ Ū̄ Ū̄ — Ū̄ Ū̄ (11 syllables)
 4th line or verse (d) : Ū̄ Ū̄ — Ū̄ — Ū̄ Ū̄ — Ū̄ — Ū̄ (13 syllables)

Apparently a verse pattern as this is not "reducible to any prosodial rules."

DERIVED FROM A VEDIC STANZA

A close study will show, however, that the metre has evolved from a Vedic stanza consisting of three *Gāyatrī* verses followed by a *Jagatī* verse,

that is to say, from a *Gāyatri* triplet enlarged into a four-line mixed stanza by the superaddition of a *Jagati* verse to round it off. The structure has resemblances to that of *Vṛhati*.

The prototype of *Udgatā* must have been a stanza constituted thus :

- (a) — — ◡ — / — ◡ — ◡
 (b) — ◡ — — / ◡ — ◡ —
 (c) — ◡ — — / — — —
 (d) — — ◡ — / ◡ ◡ ◡ / — ◡ — ◡ —

The first three lines of the stanza are *Gāyatri* verses. The opening in verses (b) and (c) has the same sequence as the opening in the very first verse of *Ṛg Veda* (*Agnimile*). The opening in verse (a) has the same sequence as that of the second verse of *Ṛg Veda* (*Yājñasya de*). The cadence in verse (b) has the typical iambic rhythm characteristic of the cadence in most octosyllabic Vedic verses. In verse (a) the cadence is trochaic, peculiar to a certain variety of *Gāyatri*. In verse (c) the cadence, an epitrite, is illustrative of the commonest variation from the iambic cadence, found in some of the latest hymns of the *Ṛg-Veda*. Such variations occur mostly in the odd lines of some of the hymns in the 10th *maṇḍala* of *Ṛg Veda*, as for example, in such verses as

.. Suryācandra/maṣau dhātā (RV, X, 190)

.. Sa bhūmim viś/vātō vṛtvā (RV, X, 90)

It may be noted in this connection that the epitrite became the regular ending of the odd lines in post-Vedic *Sloka* as for example, in such verses as

.. mā niṣāda/prātiṣṭhāntvām

.. dharmakṣetre/kūrukṣetre

Verse (d) is one of the standard forms of the *Jagati* verse.

From these one might infer that the prototype of *Udgatā* was a stanza form current in the later Vedic age, though it is difficult to say whether the term 'Udgatā' (lit. risen up) was cognate with 'Udgītha' (Sāman chant).

The evolution of *Udgatā* from the prototype stanza is easy to trace. It must have taken place when resolution of longa into breves was already in vogue. It may be noted that the same process accounts for the evolution of popular *Ardhasamavṛtta* metres like *Aparavaktra* and *Puṣpitāgrā*. The evolution of these metres points unmistakably to a stage in the history of Sanskrit prosody when moric values came to be considered more important than rigidity of any pattern of sequence.

It is of interest to note that in metres in the *Udgatā* group long syllables are never positioned in succession. This must have been due to speech habits among the non-Aryan speakers of Sanskrit, which came to influence Sanskrit prosody.

The process of evolution was on the lines indicated below.

VERSE (a)

The longa at the commencement of the opening and of the cadence in the prototype are resolved into breves. Thus

— — ◡ — / — ◡ — ◡ in the prototype
 becomes ◡ ◡ — ◡ — / ◡ ◡ ◡ — ◡ in *Udgatā*

VERSE (b)

The first and the second longa, that is, the first element and the third element are resolved into breves to avoid a succession of long syllables. Thus

— ◡ — — / ◡ — ◡ — in the prototype
becomes ◡ ◡ ◡ ◡ — / ◡ — ◡ — in *Udgatā*

VERSE (c)

By way of variety, the first longum is retained unchanged, and the next two longa in the opening (the 3rd and the 4th syllables) are resolved into breves. To avoid a succession of longa in the cadence the 3rd syllable there is also resolved into shorts. Thus

— ◡ — — / ◡ — — — in the prototype
becomes — ◡ ◡ ◡ ◡ ◡ / ◡ — ◡ — in *Udgatā*

It is interesting to notice that the sequence in the opening of verse (b) is reversed in the opening of verse (c).

VERSE (d)

Only the opening longum need be resolved in order to avoid a succession of long syllables. Accordingly

— — ◡ — , ◡ ◡ ◡ — , ◡ — ◡ — in the prototype
becomes ◡ — ◡ — , ◡ ◡ ◡ — , ◡ — ◡ — in *Udgatā*

It may be noted that verse (d) in *Udgatā* is the same as the quarter-stanza of the metre *Mañjubhaṣiṇī*. Kālidāsa uses *Mañjubhaṣiṇī* but it may have been in use even earlier. It is not to be found in the *Rāmāyaṇa* or the *Mahābhārata*. Probably it was one of the fancy metres that developed from *Jagatī* in the post-epic age.

VARIANTS OF UDGATĀ

There are two variants of *Udgatā*, *Saurabhaka* and *Lalita*. These differ from *Udgatā* only in the extent of resolution of longa in the opening of the third line.

In *Saurabhaka* the resolution of the longa in the third verse is as restricted as possible. To avoid a succession of longa, only the last syllable in the opening in the prototype (— ◡ — —) is resolved, giving the sequence — ◡ — ◡ —.

The third line in *Saurabhaka*, therefore, runs thus :

as in — ◡ — ◡ ◡ / ◡ — ◡ —
ēṭādeva tā/va saurabhakam

In *Lalita* all the longa in the opening of the third line are resolved into breves, so that the third line in *Lalita* runs thus :

as in ◡ ◡ ◡ ◡ ◡ ◡ / ◡ — ◡ —
sulalitamatika/maniyatanum

As the opening consists entirely of quick and smooth breves, the metre is justly called 'Lalita' (smooth and graceful).

The emergence of these types shows how new tendencies, induced by the influence of indigenous metres that sought to avoid long syllables, began to affect the traditional metres.

THE UPASTHITA-PRACUPITA GROUP

There is a second group of *Viṣamavṛtta* metres, comprising three types—*Upasthita-Pracupita*, *Vardhamāna* and *Suddhāviraḍṣabha*. For convenience we might refer to these as the *Upasthita-Pracupita* group.

This group of metres is referred to and described by Pingala and his early commentator Halāyudha, but they are not catalogued by Kedāra Bhatta or Gaṅgādāsa. It shows that these types had fallen altogether into disuse before Kedāra Bhatta compiled his treatise, that is to say, by the 12th or 13th century A.D. But there is evidence to show that some of them at least were in use about the 1st century A.D. for Aśvaghoṣa uses at least one of them in his poetry.

Structurally these metres have something in common with metres like *Śārdūla-vikriḍita* which were exploited by Aśvaghoṣa and his contemporaries and may be looked upon as the emerging metres of the age. These metres are representative of a stage in the history of Sanskrit prosody when the traditional principles of metrical structure came to be influenced by principles of moric equivalence.

In all the three metres in the group the first, second and fourth lines are constituted as follows:

1st line : — — — ◡ — ◡ — ◡ — ◡ — — (14 syllables)

(e.g. kanyeyam kaṇakojjvalā maṇoharādīptiḥ)

2nd line : ◡ ◡ — ◡ ◡ ◡ — ◡ — ◡ — — (13 syllables)

(e.g. śaśinirmalavadanā viśālanetrā)

4th line : ◡ ◡ ◡ ◡ ◡ ◡ ◡ ◡ ◡ — ◡ — — (15 syllables)

(e.g. sukhayati hrdayamatisayam taruṇānām)

The differences between the three are only due to the variety in the constitution of the 3rd line.

In *Upasthita-Pracupita* the 3rd line runs as follows :

(e.g. iyamatisayasubhagā) (9 syllables)

In *Vardhamāna* it is just the double of the 3rd line in *Upasthita-Pracupita*, and runs as follows :

(e.g. madakalakariḡamanā pariṇātaśaśivadānā) (18 syllables)

In *Suddhāviraḍṣabha* the 3rd line runs as

(e.g. pīnorūnitambāśālīnī) (9 syllables)

It may be noted here that in the *Udgatā* group of metres also the differences between the variant types is only due to the variation in the structure of the 3rd line.

The penultimate line is thus accorded a special importance in these metres on account of its variation as in many mixed stanzas in Vedic like *Bṛhatī* and *Atiṣakvari*.

The best way to explicate the structure of these metres would probably be as follows :

The 1st line is the staple verse and may be analysed thus :

— — — : ◡ ◡ —, ◡ — ◡, — ◡ —, — —

The opening here, as in *Śārdulavikriḍita*, is a molossus (— — —) followed by three trisyllabic feet with a longum in each. But while in *Śārdulavikriḍita* the successive feet are anapaest, amphibrach and anapaest, here they are

$$(c) \quad \left\{ \begin{array}{l} (c^1) = 6 + (4 \times 1) \\ (c_2) = 6 + (4 \times 1) \\ (d) = 6 + (4 \times 3) \end{array} \right\} = 20 \\ = 18 \quad ,,$$

The pattern in *Śuddhvirāḍṛṣabha* is

$$\begin{array}{ll} (a) = 6 + (4 \times 4) & = 22 \text{ morae} \\ (b) = 6 + (4 \times 3) & = 18 \quad , \\ (c) = 6 + 8 & = 14 \quad , \\ (d) = 6 + (4 \times 3) & = 18 \quad , \end{array}$$

The moric pattern is the framework within which utmost diversity is sought to be introduced by varying the mode of constitution of the several metra or feet in the line. No two feet in a line are alike, and although the opening is always a hexamoric metron, its constitution differs from line to line. It is slow in the first line but becomes more and more quick in the subsequent lines. The following stanza composed in *Vardhamāna* variety of *Upasthita-Pracupita* is illustrative of the features of the metres in this group:

Vimboṣṭhī/kāthinon/natāsta/nāvānā/tāngī
 hariniśīśu/nāyanā/nitambā/gurvī
 madakalakari/gamanā//parinātaśaśi/vadānā
 jānāyati mānā/manāsi mū/daṁ mādi/rākṣī (Halāyudha)

The origin of these metres is difficult to trace. But the title of one of the types, viz. *Śuddhvirāḍṛṣabha* may offer us a clue. The first ten syllables of the staple lines, i.e. of the first line of each of these metres have the same sequence as *Śuddhvirāj* (— — — — — — — — — —). In fact the staple line may be looked upon as an enlarged *Śuddhvirāj*, the last four syllables of the staple verse being an ionic *a minore* (— — — —) compounded with *Śuddhvirāj*. The third line in one of the variants, *Śuddhvirāḍṛṣabha*, is actually an acephalous *Śuddhvirāj*. The *Rshabha* metre, a 15-syllable metre (— — — — — — — — — — — — —) of a later date, has certain points common with the staple verse of *Upasthita-Pracupita*. The last three syllables are the same in both, and both are constituted mainly with trisyllabic or bisyllabic feet of 4 morae each. But it is difficult to go beyond these facts and to explain satisfactorily the origination of these metres and the metrical implications of the name *Upasthita-Pracupita*.

It may be noted in this connection that an opening with a molossus or any of its resolved forms is a feature common to many metrical types like *Praharsini* (— — — — — — — — — — — — — — — —), *Prabhā* or *Canalākṣikā* or *Mandakini* (— — — — — — — — — — — — — — — —), *Nārāca* or *Nārācaka* (— — — — — — — — — — — — — — — —), *Śardulavikriḍita* (— — — — — — — — — — — — — — — —), *Daṇḍaka* [— — — — — — — — — — — — — — — —] and its many variants].

These are among the emerging metrical types of the post-Vedic or Epic Age. The usual Vedic opening with four syllables and a preponderance of longa is modulated in these metres into lighter types.

THE THIRD GROUP

There is a third group of *Viṣamavṛtta* metres, the *Pada-Caturvṛdhva* group, in which the constituent verses are progressively longer, being 8, 12, 16 or 20 syllables long, each verse being longer than the preceding by 4 syllables. There is no restriction regarding the quantity of the syllables composing the verses.

Here is an example :

tāsyāḥ katākṣavikṣepāiḥ
 kāmṭitatanukūtilairatidīrghaiḥ
 takṣakadaṣṭa ivendriyaśūnyaḥ kṣatacaitanyaḥ
 padacaturūrdhvam/na calati puruṣaḥ patati sahasaiva

This total disregard of the quantity of individual syllables may have been due to attempts to revive the practice in old Indo-Iranian prosody in which only the number of syllables in a verse were taken into account. Or, it might have been due to an attempt by certain composers to avoid the intricacies of sequence in the traditional metres and invent a new variety of metres based on the number of syllables arranged in simple mathematical patterns.

Anyhow these metres were off the tradition, and appear to have never caught on. Metrical tradition in Sanskrit was always conservative and never permitted radical departures from practice.

In the main type (*Pada-catur-ūrdhva*) in this group the 1st line contains eight syllables, the 2nd twelve, the 3rd sixteen, and the 4th twenty. Thus a strict formula of arithmetical progression is followed. An example has been given already.

There are several variants of the main type. If the 1st and 2nd lines in *Pada-catur-ūrdhva* interchange places, the metre is called *Manjari* (12+8+16+20 syllables). If the 1st and the 3rd interchange places, the metre is *Lavali* (16+12+8+20 syllables). And if the 1st and the 4th do so, the metre is called *Aṃṭadhārā* (20+12+16+8 syllables).

There were a few special types of *Pada-catur-ūrdhva* in which certain prescriptions with regard to quantities were followed. In the *Āpiḍa* variety the last two syllables in each line were long and all others short.

In *Āpiḍa*, therefore,

the 1st line = 8 syllables = 6 short + 2 long = 10 morae
 „ 2nd „ = 12 „ = 10 „ + 2 „ = 14 „
 „ 3rd „ = 16 „ = 14 „ + 2 „ = 18 „
 „ 4th „ = 20 „ = 18 „ + 2 „ = 22 „

In *Pratyāpiḍa* (A) variety, the first two syllables in each line were long and the others short. In *Pratyāpiḍa* (A), therefore,

the 1st line = 8 syllables = 2 long + 6 short = 10 morae
 „ 2nd „ = 12 „ = 2 „ + 10 „ = 14 „
 „ 3rd „ = 16 „ = 2 „ + 14 „ = 18 „
 „ 4th „ = 20 „ = 2 „ + 18 „ = 22 „

In *Pratyāpiḍa* (B) variety, the first two syllables as well as the last two in each line were long and the others short. In *Pratyāpiḍa* (B), therefore,

the 1st line = 8 syllables = 2 long + 4 short + 2 long = 12 morae
 „ 2nd „ = 12 „ = 2 „ + 8 „ + 2 „ = 16 „
 „ 3rd „ = 16 „ = 2 „ + 12 „ + 2 „ = 20 „
 „ 4th „ = 20 „ = 2 „ + 16 „ + 2 „ = 24 „

It is evident that all these were constructed mechanically on certain abstract mathematical principles, and had little connection with the metrical tradition. They were never popular and are not included in most of the works on Sanskrit prosody.

REVIEWS OF BOOKS

UPANIṢAT-PAÑCAKA—By Chitrita Devi. Published by Sanskrit College, Calcutta. Pages—4+189.

This is a compilation in Bengali of five of the smaller Upanishads namely, Taittiriya, Mundaka, Praśna, Māndukya and Aitareya. Evidently, the work is actuated by the motive of making available to the Bengali reader the texts of the Upanishads in such form as may be easily followed by them. The plan adopted is this: The text is quoted first in Bengali character which is followed by a translation in Bengali. Then follow explanatory notes on key words appearing in the text. This is supplemented by a general commentary on each of these Upanishads bringing out their characteristic features.

The plan of the book is thus unexceptionable. The general introduction and the notes are useful aids to the understanding of the original text. The translation generally conforms to the spirit of the philosophy permeating the texts of the extant Upanishads.

It is regretted however, that the translation has not been strictly accurate. This is mainly due to the tendency of the translator to insert additional words which do not find place in the text. Again, sometimes the same word has been translated in different ways, different expressions being used on different occasions perhaps to avoid monotony. For illustration a reference may be made to the translation of the very first *Anuvāk* of the first chapter of the Taittiriya Upanishad. The expression ॐ appears again and again in the text. It has been translated differently as আনন্দ, স্বথ, যজ্ঞলব্ধ, স্বথকর. These expressions again are not synonymous. Similarly, in respect of *Mitra* while the original uses no epithets, the translation is embellished by the insertion of an adjective দিবসপ্রভীক. In the same vein while *Varuṇa* is mentioned by name only in the original, the translation qualifies him with the attribute নিশীথদেবতা. It is not necessary to multiply examples which are scattered about in abundance throughout the book.

This is however, a wrong approach. When an original text is translated what is expected is that the translation should convey an exact and precise idea of the contents of the original. Maxmüller's translation of the Upanishads serves as an excellent model and could have been followed with advantage. The deviations referred to above, though minor in character, detract from the value of the translation.

HIRANMAY BANERJI

A DESCRIPTIVE CATALOGUE OF SANSKRIT MANUSCRIPTS IN THE COLLECTIONS OF THE SANSKRIT COLLEGE, VOLUME ONE, PART III. By Jagadish Chandra Tarkatirtha and Ananta Dev Tarkatirtha. Calcutta Sanskrit College Research Series No. LXVII 1969. 10"×6", Pp. 513-860, with an Index of Works and an Index of Authors.

In the absence of any knowledge of the contents of Parts I and II of Volume One, the Part III volume is singularly uninformative. It is not clear

whether this part includes Mss. from the earlier series of Sanskrit College Descriptive Catalogues of Sanskrit Mss. or deals with new, yet unrecorded Mss. In 1943, the present reviewer, then Principal of Sanskrit College, pressed on Government the necessity and desirability of resuming work on the series which had been, discontinued for some years. Mr. Jenkins, the then Director of Public Instruction, sought to be helpful in spite of the overall anxieties of the War; but funds were not forthcoming. It would be interesting to know whether it is a continuation of an unfinished task or a new venture, and how many of these Mss. were noticed earlier.

Two editors have compiled the collection. Even then there should have been approximate uniformity of terms and expressions. It is confusing to distinguish between the intended meanings of—'Printed' nos. 953, 954 (pp. 814, 815; 521, 406) and 'Published' nos. 956, 957 (pp. 816, 817; 1038, 1441).

Proof-reading and printing are not in keeping with the standard of the previous volumes of this series. e.g., 'colibrated' p. 836, 'commented had translated into English' p. 759, 'cowell' for Cowell. Description in English is often incomprehensible; e.g., 'The Ms. (no. 1342, p. 789) bears up abruptly.'; 'Vātsāyana bhāṣya' misprint for Vātsāyana's bhāṣya. "Parāmarśa, which consists in the knowledge of the Pakṣa as having the universal circumstance is a grand of inference" p. 841; unfortunately instances could be multiplied.

The Editors have rightly noted the important mss. vide p. 714, *Tarkavādārthamañjarī*. A separate Index of such unique mss. will be helpful to research workers for a comparative study.

A. BANERJI-SASTRI.

PADAĀCANDRIKĀ. A commentary on the Nāmaliṅgānuśāsanam of Amara. By Rāyamukuṭa. (Text and the Commentary) Volume one. Edited by Kali Kumar Dutta Sastri. Calcutta Sanskrit College Research Series, 1966. 12"×8", pp. i-xv, Text 1-325 (Svargavarga and Pātālavargā, Pp. 327 (Authors and works cited by Rāyamukuṭa, pp. 332-528 (with a pentaglot vocabulary in Bengali, English, French, German and Hindi).

Lexicography is an important section of Bibliography of Sanskrit Language and Literature. The Sinhalese Sanskrit Ṭikā of Puruṣottama-deva's Trikaṇḍaśeṣa mentions by name or by the author's name about 200 Sanskrit Koṣas and if references in the European catalogues, e.g., Aufrecht's Sanskrit Catalogorum and catalogues of the Bodleian and Berlin libraries are taken into consideration, a thousand names may be put together directly or indirectly connected with Sanskrit lexicography. But the extant Sanskrit lexicons, outstanding or insignificant, are barely a hundred in number and of these less than thirty are really valuable for a study of Sanskrit. Of these thirty, the following are important:

1. Samāmnāya (anonymous) with Ṭikā of Devarāja and Nirukta of Yāska, A.S.B.
2. Nāmaliṅgānuśāsa of Amarasimha with Rāmāśrama, Bombay, with Sarvānanda's Ṭikā, Travancore, with Kshīrasvāmin, Poona.
3. Vaijayantī of Yādava.
4. Abhidhānatnamālā of Halāyudha. Ed. Aufrecht.
5. Abhidhānachintāmaṇi of Hemacandra with his own Ṭikā.
6. Kalpadru of Kesava MS.

7. Trikāṇḍaśeṣa of Puruṣottamadeva, Bombay.
8. Dhanvantari Nighaṇṭu, Poona.
9. Madanapāla Nighaṇṭu, Calcutta.
10. Rājanighaṇṭu, Poona.
11. Kaiyadeva MS.
12. Rudra, MS.
13. Amaradatta's Nāmamālā MS.
14. Rabhasapāla's Rabhasakoṣa MS.
15. Maṅkhakoṣa, Ed. Zachariae.
16. Viśvaparakāṣa, Choukhamba S.S. Benares.
17. Nānārthhārṇavasāṅkṣhepa of Keśavasvāmin, Travancore.
18. Haimānekārtha with author's own commentary Anekārtha-Kairavakarakaumudī. Ed. Zachariae.
19. Medinī, Calcutta.

Published collections of Koṣas include Abhidhāna-Saṅgraha, Bombay; Ṣaṭkoṣa Saṅgraha and Dvādaśakoṣa Saṅgraha, Benares.

Samāmnāya (c. 6th century B.C.) deals with important Vedic synonyms; the unversified lists were versified in the eighteenth century by Bhāskarāya in his Vaidikanighaṇṭu.

Amarasiṃha deals with post-Patañjali Sanskrit language and literature. His only extant work is Nāmaliṅgānuśāsana, popularly known as Amarakoṣa. Probably belonging to the 6th century A.C., it is like a practical handbook for students in reading authors like Kālidāsa and Bhartṛhari. It is not of much help in studying pre-Kālidāsa or later writers. Not caring about technical words, it consists of about 10,000 words in verses, employing the Anuṣṭubh metre. Ṭikās on Amarakoṣa are numerous; of these the most important are Kṣhīrasvāmin, Sarvānanda, Rāyamukūṭa and Rāmāśrama. The book under review is the work of Rāyamukūṭa entitled Pada-candrikā, a commentary on the Nāmaliṅgānuśāsanam of Amara by Rāyamukūṭa.

Amarasiṃha is silent about his predecessors. The task of an editor is complicated by the fact that the Amarakoṣa has no Ṭikā by the original author as some of the works of Hemacandra have; on the other hand it has a large number of Ṭikās by scholars of old. As the present editor has noted in his Preface, pages xiii-xiv, neither the available manuscript materials nor the variants in readings and meanings in the individual Ṭikās, though numerous, helps in producing a critical text.

The industry and research of the present editor is highly commendable in making available in print to students of Sanskrit a portion of an undoubtedly valuable work on lexicography of which only two fascicules were published long ago by Anundorūm Borooah.

In this connection the present reviewer may be permitted to draw the learned editor's attention to certain misgivings he has long entertained about Amara and some of the Ṭikākāras, Rāyamukūṭa not excepted. Have we got their complete texts? The Vaijayantī of Bhagavad-yādavaprakāṣa, preceptor of Rāmānuja, founder of Viśiṣṭādvaita Saṃpradāya, amplifies the Amarakoṣa. Both Amara and Yādava had their predecessors in lexicography as stated by Hemacandra, Medinī and the two Keśavas. Amara did not write a ṭikā on his own koṣa, but had many ṭikākāras. Vaijayantī had no ṭikā by himself nor was it commented on by others. Hemacandra, Medinīkāra and author of Kalpadru could not procure a complete manuscript. Vaijayantī amplified Amara, neither wrote commentaries of their own. How can Rāyamukūṭa vouch for the authenticity of Amara text when commenting on it in his Pada-candrikā? Neither Amara nor Vaijayantī have done full justice to the homonymous aspect of Sanskrit lexicons, so far as their extant

texts show. Amara deals with the homonyms in less than three hundred ślokaś, Vaijayanti in twice as many; yet both appear inadequate. Keśavaśvāmin author of Nānārthārnavaśaṃkṣepa who apparently utilized incomplete manuscripts of Vaijayanti's amplification of Amaraśośa has left a text on homonyms only, ignoring curiously Vaijayanti's section on synonyms. The inter-relation of Amara, Vaijayanti and Keśavaśvāmin, their acts of omission and commission could become intelligible only on the assumption that none of the manuscripts available gives a complete text of any of these three authors. That would also confuse the claim of the extant Padaśandrikā on Amara. It would accentuate the enormous difficulty of first reconstituting Amara through his fellow lexicographers and then prepare a critical text of Padaśandrikā of Rāyamukuṭa after a painstaking scrutiny of his fellow commentators.

In his edition of Padaśandrikā, the learned editor has amply proved his capacity and competence for this laudable work.

A. BANERJĠ-SASTRI.

THE JALLIANWALA BAGH MASSACRE By Raja Ram—pp. XIV+208, Published by the Publication Bureau of the Panjab University, Chandigarh, 1969. Price Rs. 12.

It is a monograph specially prepared to celebrate the fiftieth anniversary of the Jallianwala Bagh massacre. Though half a century has passed since that tragic event its memory is still fresh in the minds of many Indians, and it is in the fitness of things that at least two historical works incorporating the results of most recent researches, have been written during this year to commemorate the great historical event.

The book under review has not only given a detailed account of the tragedy but has devoted considerable space to a study of the historical background which led to it. The author has made full use of the available material and his style of writing is lucid and attractive. The value of the book has been enhanced by several 'Appendices', giving chronology of the meetings that preceded the tragic one on 13th April, 1919, a list of 381 persons killed on that occasion, Bibliography, and a special review entitled 'Nefarious Plan' (Appendix D). The one mentioned last sums up the conception which underlies the writing of the whole book, and may be said to be the original contribution of the author. As such it requires a detailed consideration.

This conception is based upon two views which may be broadly stated in the author's own words:

"So far, it has generally been believed that only after the outbreak of disorders on the 10th of April at Amritsar the authorities were actuated to take extreme measures on the 13th April, but it was not so. The local government had decided quite in advance (on the 9th of April), with the active connivance of military authorities, to carry out the massacre on the 13th" (p. 175).

"The Government of O'Dwyer had decided on the 9th April to fire on a large crowd on the 13th at Amritsar, and both civil and military authorities had begun to co-ordinate their activities in that direction with effect from the evening of that date" (p. 177).

This is further elaborated as follows:

"It was only with a view to creating hostile atmosphere before the Baisakhi (13th April) that popular leaders of Amritsar were deported on

the 10th April and the Deputy Commissioner of Amritsar, Mr. Miles Irving, decided not to listen to the people in any case. When, even then, people remained peaceful, they were worked up to frenzy by the firing of bullets on a peaceful crowd on that day. This action of officials let loose the forces of violence. This was exactly what the bureaucracy was waiting for; they massacred hundreds of people in the Jallianwala Bagh on the 13th April" (p. 140).

This is a very serious charge which, to the knowledge of the reviewer, has not been brought against O'Dwyer, so far, even by his most hostile critics in India. But though this bold original view appears to the author 'to be obvious' (p. 177), and Professor R. R. Sethi, in his Foreword, regards it as "conclusively proved" (p. xiv), the evidence cited in the book does not uphold it. The most important evidence for this statement seems to be a sort of consultation at the Government house on the 9th April, 1919, and the warning given to some military officers that trouble *was expected* on the 13th in Amritsar. The author's bracketed interpretation of the two underlined words—"(*i.e.*, to be created)"—is obviously very farfetched. The author admits: "What actually transpired among the few top civil and military officers of the Government in the evening of the 9th of April, no body can now know" (p. 176). Further, the author himself has stated that it was only on the 12th that the announcement of the meeting to be held on the 13th was made (p. 107). It is therefore very difficult to maintain that 'apprehension of trouble on the 13th' could have any reference to 'a premeditated general massacre in a meeting to be held on that day,' of which there was no knowledge on the 9th.

The other bold original theory of the author is contrary to the views hitherto almost unanimously held, *viz.*, that most of the people who attended the meeting on the 13th did so in ignorance of the order proclaimed by Brigadier General Dyer on the morning prohibiting any meeting on that day. As a matter of fact this was one of the strongest arguments advanced by the Indians for denouncing the conduct of Dyer.

But the author says: "It has been made out that people had gone to Jallianwala Bagh to attend the meeting, without knowing the possible consequences, and that they were unknowingly trapped there. But to say this is to make a mockery of their supreme sacrifice. The meeting was held in the Bagh as a part of the Satyagraha movement and in open defiance of Dyer's proclamation made at 19 places during the day, prohibiting assembly of more than four persons. People were well aware of the possible result of holding a meeting in defiance of military orders. They had already tasted the shooting by troops on the 10th April. The fact is that they were not prepared to surrender themselves to the official dictates. Therefore, to say that innocent blood was shed is to belittle the importance of the supreme sacrifice made on that day by thousands of Satyagrahi soldiers, whose very presence in the Bagh amounted to open defiance of authority" (pp. 141-2). No evidence has been cited to prove this. But one would naturally think that in such a case old men and children would not probably have attended it, and should have certainly been sent back by those 'martyrs' who had pledged themselves to defy the order at the cost of "supreme sacrifice". As the author says, "people had started pouring into the Bagh after 2 P.M." and Dyer did not start for the meeting till after 4 P.M. (p. 113). So there was enough time to remove at least a major part of the people who could not possibly have been inspired by the idea of voluntary martyrdom. Further, it must be noted that as soon as Dyer's men began to fire, the vast audience, naturally enough, ran pell mell for exit or shelter, and there is no record of a single man boldly advancing

to meet his doom as Swami Shraddhanand did at Delhi on 30 March. When "the soldiers threatened to shoot, Swamiji opened his chest naked and asked the soldiers to fire at him" (p. 74). But no such incident is reported in connection with Jallianwala Bagh meeting. In describing the vast gathering in the meeting at Jallianwala Bagh as an assembly of inspired heroes and martyrs rather than innocent victims of a friendish action on the part of Dyer, the author was obviously inspired by the motive of exaggerating the importance of the meeting at Jallianwala Bagh. This is proved by the concluding passage of the book: "Had the people of Amritsar not taken a heroic stand against the awful might of the British on that fateful day, India would not have gained freedom within a generation thereafter" (p. 142). Of 'heroic stand' there is not an iota of evidence. As regard its presumed effect, it will suffice to state that in the session of the Indian National Congress held at Amritsar itself, less than nine months after the Jallianwala Bagh massacre, Mahatma Gandhi staunchly supported the co-operation of Indians with British Government by accepting the Reforms of 1919 against the opposition of eminent Indian leaders, and his view was accepted by that august Assembly. This is hardly compatible with the view that the Jallianwala Bagh massacre accelerated the freedom of India.

To sum up: three 'heterodox' views have coloured practically all that has been said in the book. These are (1) that Jallianwala Bagh massacre was deliberately planned by O'Dwyer on 9th April (i.e., three days before the announcement of the date of the meeting at that place); (2) that the people who attended the meeting was cognisant of this, but deliberately chose to make the supreme sacrifice (though not a single man openly defied Dyer's action); and (3) that their heroic stand (?) hastened the advent of freedom to India (though political opinion, as represented in the Indian National Congress held in December, 1919, did not seem to attach any importance to the event as a factor in the urge for political reforms, not to speak of freedom).

As regards the second point noted above, it is necessary to state that the organisers of the meeting, according to the report of the Hunter Committee, allayed the fears of the people by the assurance that Dyer's proclamation was a mere bluff. This is corroborated by the evidence of Khushal Singh (who was present in the meeting at Jallianwala Bagh) before the Congress Inquiry Committee. "Khushal Singh said that the first speech in the Bagh began at 3 p.m. At 5 O'clock an aeroplane hovered low over the area frightening the audience. As some people began to move away, Hans Raj stood up on the platform and urged the crowd to be seated and not to worry. He told the people that the 'Government will never fire' (*Jallianwala Bagh* by V. N. Datta, p. 163). It has been urged that Hans Raj, who was the Chief organiser of the Jallianwala Bagh meeting, was an *agent provocateur* who made the people assemble in large number so that they might be killed together in one place. This may or may not be true, but in either case Khushal Singh's statement goes against the view that the men who attended the meeting did so with full knowledge of the plan of massacre, in order to die as martyr.

As a matter of fact, the evidence cited for the three momentous conclusions stated above, would not bear a moment's scrutiny, and one is tempted to regard the book as a 'propaganda pamphlet' rather than a sober historical work. The printing and get-up of the book are excellent.

HISTORY OF THE FREEDOM MOVEMENT IN INDIA. By Tarachand. Vol. II. Publications Division, Ministry of Information and Broadcasting, Government of India, New Delhi, 1967.

The first volume of the official history of the freedom movement in India, written by Dr. Tarachand under the auspices of the Union Ministry of Education, was widely criticised; a section of professional historians regarded it as one-sided, inadequate and partly overburdened with material which was remotely connected with the main theme. That, however, was a preliminary survey, an introductory narrative. The volume under review, as the author says, "deals with India's reaction to the British impact during the nineteenth century". Here we have the early phase of the story of the freedom movement. The author has tried to make the story as full as possible. Of the thirteen chapters into which the book is divided not more than four deal with the purely political aspect of the freedom movement; the remaining chapters are devoted to education, society, religion, economy, public opinion, etc. Apparently the author's purpose is to put the freedom movement in the widest possible perspective; instead of placing too much emphasis on the narrative of events he seeks to explain why the events took place and assumed a particular shape. This is how history should be written, particularly when the events to be narrated form—to quote the author—"a fascinatingly instructive chapter in the history of human evolution". Unfortunately he has not achieved recognisable success in integrating his narrative of events with the socio-economic background. His chapters read more like independent essays than like co-ordinated portions of an integrated literary enterprise. The reader jumps and halts, looks backward and forward, instead of pursuing a well laid track running to a clearly marked destination.

Chapter I deals with "resistance and insurrections" before 1857. "The earlier uprisings", says the author, "were isolated and uncoordinated, and they culminated in the tragic Revolt of 1857" (p. vi). The author's account of "the earlier uprisings" is unsatisfactory. He deals with them on a regional basis and groups together anti-British adventures of all kinds without analysing the differences in their causes and effects. From his point of view any one who resisted the authority of the East India Company for any reason—public or private—was a fighter for freedom: Mir Qasim; Bhawani Pathak and Devi Chaudhurani (who are mentioned under the heading "Movements among the Muslims," p. 10); Velu Tampi; the Ramosis; Wazir Ali; Daya Ram of Hathras; and many others. If the word "freedom" has any positive connotation it is difficult to think of Bhawani Pathak or Wazir Ali as freedom fighters. The author's summary of "the earlier uprisings" is intended to show that "disatisfaction and rebellion were incipient throughout the period" (p. 22). This is hardly an adequate characterisation of the first century of British rule in India. Following the author's trend of argument one might interpret the comparative infrequency of "uprisings" in the second half of the nineteenth century as an indication of the absence of "disatisfaction" against British rule during that period.

The story of the "uprisings" is not linked up logically with the author's version of the Revolt of 1857 (Chapter II). On the "character of the upheaval" the author gives us a bunch of quotations from English writers. The narrative has little plan and coherence. The author says that the Revolt "convulsed the whole country" (p. 74), and that sepoys and civilians as also Hindus and Muslims "made a common cause" to "overthrow the alien rule" (p. 96). But he does not place before the reader convincing

facts in support of such sweeping allegations. Neither in the text nor in the foot notes is there any reference to the views of distinguished writers on the Revolt such as Dr. S. N. Sen (whose book was written under official auspices) and Dr. R. C. Majumdar. It was not realised, regrets the author, that "a fusion of communities into a higher political organism alone could guarantee success against a modern power" (p. 107). He does not tell us why such a fusion could not take place at that time.

In Chapter III we have an account of the rise of the Indian middle class. The author's analysis does not in some cases bear scrutiny. For instance, he says: "The modern Indian middle class owed its birth to European enterprise in India" (p. 109). In Bengal the administrative reforms of Murshid Quli Khan laid the basis for the emergence of a Hindu middle class long before European enterprise became a potent factor. It is curious that the author refers to the role of the Railways in "the evolution and development of national consciousness" (pp. 168-9) in this chapter rather than in the chapter on "Economic Background of Indian Nationalism".

In Chapter IV, dealing with "the new education", the author makes the curious remark that "the dominance of English retarded the development of the Indian languages" (p. 208). This is certainly not true of Bengal, where "the dominance of English" proved to be a powerful incentive for the development of a rich regional literature.

Chapter V, dealing with "the Press and Public Opinion", gives us a bare summary of facts in a few pages. The chapter on "Social reform" (Chapter VI) contains a review of Raja Ram Mohan Roy's political ideas and internationalism (pp. 255-60) which reads like an irrelevant digression. In the Chapter on "Economic background of Indian nationalism" only five pages have been allotted to the period before 1857; no attempt has been made even to indicate India's forcible transformation into an agricultural country unable to support a growing population. Even in an official history one is hardly prepared to find a statement such as the following: "The peasant found in the Congress a forum for voicing his grievances and an organised body to champion his cause" (p. 306). The author is speaking of the last years of the nineteenth century, not of the Gandhian period.

In Chapter VIII, dealing with "Trends of Muslim Thought (1857-1905)", the author quotes profusely from Sir Syed Ahmad's observations on "the unity of the Hindus and the Muslims" (pp. 357-8, 363-4) and says: "It is a travesty of truth to regard him as the author of the theory that the Hindus and the Muslims were two separate nations. In fact, he was a supporter of Hindu-Muslim unity" (p. 358). Yet, as the author himself says, in 1887 Sir Syed "launched a violent campaign against the Congress" (p. 374). This is sought to be explained away by the statement that "his opposition was based on political considerations only and did not affect his social relations with the Hindu community" (p. 374). Did Hindu-Muslim unity, of which Sir Syed is said to have been a "supporter", mean nothing more than good *social* relations between the two communities? As early as 1858 he recommended formation of separate regiments of Hindus and Muslims in the Army. Again and again he spoke of "various creeds and various nationalities". In 1888 he spoke of "two nations, the Muhammadan and the Hindu". Sir Syed Ahmad was a great leader; the historian's business is to help people to understand him and not to misrepresent him through select quotations supporting a particular point of view.

The author's treatment of "Religious and social movements" in Chapter IX gives us neither new facts nor a fresh outlook. He applies the

adjective "saintly" to "Prince" Dwarkanath Tagore as also to his son Debendranath (p. 407). The author is critical of Bankim Chandra on the alleged ground that he "concentrated attention upon the moral and political regeneration of the Hindu community exclusively", losing sight of "the multiple nature of the Indian Society" (p. 412). But he does not apply this test to the views of Sir Syed Ahmad.

Chapter X gives us a perfunctory narrative of the expansion of education and the role of the Press from 1858 to 1905. One paragraph has been devoted to the effects of Western Education "in transforming the Indian mind" (p. 446). In Chapter XI, entitled "Imperialism and its record", we have not a particularly well planned account of British policy in its different aspects. It would have been better if it had been preceded, instead of being followed, by the chapter on "The political movement" (Chapter XII). The historical significance of Surendra Nath Banerjea's countrywide tours (1877-78) in generating a sense of national unity is completely ignored (p. 529). It is premature to talk about "the evolution of the middle class into a group with a completely secular, democratic and nationalist outlook" (p. 524) in the nineteenth century. After the foundation of the Congress, says the author, "agitation acquired momentum" (p. 527). Men like W. C. Bonnerjee, Pherozeshah Mehta and Surendra Nath Banerjea were certainly not agitators, nor did they make "the attainment of responsible self-government" the "principal target of Congress policy" (p. 527). From 1857 to 1874, we are told, "the policies of England were determined by the Whigs led by Palmerston" (p. 530). Palmerston died in 1865 and his successor in the party, Gladstone, was a radical reformer in British home politics. The author's remarks on the immediate effects of the first session of the Congress (pp. 549-550) might have come from a professional political speaking at a mass meeting. "The whole of India", says the author, "felt the throbbings of a new life". Only 2 Muslims attended the session. The leaders of the Congress, we are told, "threw a bold challenge to the powers... gave a warning to the rulers that India... was determined to shape her destiny herself". The speeches delivered were too clearly marked by profession of loyalty to the rulers, and the resolutions adopted were too modest, to justify such sweeping assertions.

Chapter XIII contains a brief review of "Literary renaissance" in different parts of India. How it was stimulated by Western influence and, in its turn, stimulated nationalist ideas is not clearly explained. But there are ill founded generalisations such as the following in respect of Bengali literature: "Equality of all men and of man and woman was stressed and the emancipation of the individual from the authority of family, caste and tribe was assented. Above all, the consciousness of national unity emerged" (pp. 591-2).

The volume is based almost entirely on secondary works. There is no bibliography. In the foot notes there are only a few references to published documents and fewer references to unpublished documents. This is particularly regrettable because the author and his colleagues had their office in the National Archives of India and were in a position to study unpublished papers with the least possible trouble. A map of India should have been provided for the benefit of foreign readers.

The Indian Revolution is a noble theme; it deserved a better exposition than a volume which is little more than a compilation of known facts.

STONE TOOLS—HISTORY AND ORIGINS. By S. R. Das. Demy Octavo. 22 Cm × 14 Cm. I-V+209 pages. Figs. 1-15. Plates I to V. Published by Pilgrims Publishers. Calcutta. 1968. Price Rs. 25-00 only.

An unconscious renaissance in the studies of Humanities brought about a profound change, if not revolutionary, in the studies of various interdisciplines of archaeology with a totally modern approach. Prehistory is a discipline of that vast subject generally called Archaeology. In fact, it is the vanguard of archaeological studies, lacking possibly the subtleties of human personalities that characterize the historical archaeology. It is well known that the archaeological history of humanity is broadly divisible into two groups: Pre literate and literate and prehistory as practiced in Europe with its well defined periods according to the remains of material culture dealt with, is concerned with the period before written records come to our aid to tell the story of man's victorious progress. This Pre history is not synchronous in any two regions of the earth. Deeply immersed in the flow of time cycle, the workers are confronted with unlimited transformations, in climate, flora, fauna and even changes in terra firma making possible the appearance of primitive man and ultimate evolution of modern races. The evidence of the gradual changes in brawn and brain of *Homo sapiens*; and the, most important data that a Prehistorian deals with is to determine, the progress of Pithecanthropus, along with his economic, social, intellectual, spiritual and aesthetic concepts are neglected in the tools or the industries with whose sole aid he successfully overcame the steel frame of his climatic and ecological conditions; and initiated that steep uphill struggle for evolving community life, division of labour, harnessing animal power, introducing agriculture and animal husbandry and finally a socialistic state from primitive communism.

In India, the study of Pre history, like other countries of the earth was a gift of modern Europe. The greatest contribution of a progressive Europe, not yet scarred and impoverished by two world wars to civilization in general. This parochial studies since Sir William Jones laid the foundations of investigations on our culture, language and monuments in this city, depended till the thirties of this century on surface collections, except few pioneer works like those of N. K. Bose and Dharani Sen. But before that a providential help came in the De Terra Expedition, correlating Typology, with geological horizons, climate, flora and fauna in the Sohon valley of West Pakistan, then a part of United Punjab. In this great introduction of modern methods in Pre-history, V. D. Krishnaswamy, Dharani Sen and Rahim etc., worked as field trainees, who in their turn have created schools of Pre-historians. The solitary exception being H. D. Sankalia spurring fire and flames against "Civil Service Archaeologists". A further change with independence came when to the vision and imagination of India's first Prime-minister and re-organisation of archaeological studies by A. Ghosh gave unlimited scope to the states and the various Universities, thereby amassing a mass of evidence within a decade.

Professor S. R. Das is to be congratulated in publishing this book at a most opportune moment, when a heart searching has become absolutely imperative in the very interest of discipline, complacency and patting on the back by patronising journalists are ruining the scientific objective of the subject. It was endangering the structural growth within few years of its foundation stone laying. But let me warn, that Professor Das has not merely thrown a pebble in a calm pool of self advertisement and admitted demand of recognition of facts as presented by any individual worker, but

a big rock in a lake which was in danger of growing weeds and becoming stagnant and is likely to create mountainous waves of scorn, indignation and controversy from vested interests. The post independent India has created an unlimited amount of scholars particularly through those small coteries of Anglo-American patronisation, who are to be considered authorities, because, they hold a position in some mushroom University or state department, forgetting the simple axiomatic truth, enunciated long long ago, by the late Sir Asutosh Mookherji that it is the "Man who makes the position and not the position the Man". Like, N. K. Bose, D. Sen, A. Ghosh, H. D. Sankalia, B. B. Lal etc.

The book is divided into two parts. The first containing seven chapters defining: stone tools, their technological and cultural contents *vis a vis*, Nature, Fossil Man, Nature makes stone tools etc. The second part is divided into ten chapters: Dawn. Additional finds, Reassessment or Recapitulation, Nature and Profusion, technique, typology, association, associations: Man and Animal, stone tools and culture, living prehistory, Epilogue. The principal merit which makes the book imperative to field workers, teachers and students alike is, as clarified by the author "that scientists should express doubt where there is scope for doubts and where doubts are needful and welcome". In fact, the doubts are the pivot on which a discipline justifies itself. Because, science is the truth. The problems of the Old Chipped stone tools are varied and in the present state of our studies in India are very complex and what is more in an elementary stage; necessitating garnering of greater mass of evidence, revealed by well directed expeditions, geologically or environmentally co-ordinated, establishing culture sequence, otherwise it will be difficult to precisely follow the Pre history of any area, and this can only be done by an archaeologist specialised in Quarternary Geology. Otherwise they are likely to remain as *Cabinets d' curiosite* like Kāsimuddin's neolithic script or Rostrocarinates, without the context yielded by the spade or the missing temples of Rādhā Binode and Murlimohun at Vishnupur by a dilattante I.A.S. Officer.

The work is likely to prove a great shock to those who have been taking for granted that their identifications are beyond dispute, since they have been reported by them to have been found in cemented gravel or decomposed laterite, without a clarification of the stratigraphical context under which the deposits were made, without dating of the past. A piece of pebble or flake can receive the shape of a stone tool due to various causes natural or otherwise, due to fragmentation on account of heat, landslide or seismic disturbances and fractures both vertical and concoidal as in the case of deposits of felspar, quartz and agate in the Monghyr district. Professor Das himself a noted field worker is justified in sounding a well deserved warning about hurried conclusions about the pitfalls that face the Indian Pre historians, particularly those unimaginative and redundant cliques that rush to the Press with their undigested materials, thereby creating more confusion and problems for the uninitiated and public in general.

Unwittingly perhaps, he has produced a work, which, as already stated, will create great deal of heart burning and enmity too for spoiling their easy pitches created with the help of journalists amongst credulous public. Nevertheless, every unbiased or unprejudiced person would feel grateful to him for producing a work on a most abstruse branch of archaeology full of well authenticated data. Whatever might be the reaction of biased contemporaries future consensus will, remain obliged to Professor Das and unborn generations of Indian intellectuals grateful.

REFORM AND REGENERATION IN BENGAL, 1774–1823,—By Amitabha Mukherjee, M.A., A.M., Ph.D. (published by the Rabindra Bharati University, Calcutta, 1968). Pp. xx+392.

Dr. Amitabha Mukherjee is to be congratulated for bringing out a readable, informative, and intensive study of an important, but relatively neglected, period in Bengal's cultural history, coinciding with the first half-century of effective British rule in the province. Based on his doctoral dissertation at the Jadavpur University, this survey would be useful to students, scholars, and the reading public, for its competence, and conscientious, industrious character.

The author has examined with full evidence the basic aspects of his subject—the introduction of the new English education (chapters I and II), the debate over religious change (chapter III), the early social reforms (chapter IV). The concluding fifth chapter deals in a succinct manner with three other features—the emergence of Bengali prose, the new journalism, and the advent of the political consciousness. The writer suggests that the reason for the summary fashion of treating the last three topics is (partly ?) the 'excellent work' already done therein. One may however think that this is also true in relation to the items which have been discussed much more fully in his thesis. The deciding factor is most likely to have been considerations of space.

Dr. Mukherjee points out that the 'new education' came not so much because of official policy, that it was rather the outcome of Indian demands for it, very largely utilitarian, but to some extent inspired also by the natural desire to learn more of the civilisation of the triumphant conquerors. He gives a comprehensive account of the early non-official ventures in the field. He seems to agree with the comment in the Foreword that Rammohun Roy had nothing to do with the foundation of the Hindu College, yet he does not forget to add the evidence of the *Calcutta Christian Observer* of July 1832 that the idea was first 'mooted by David Hare in an informal gathering at Rammohun's house' in 1815 (p. 24). Dr. Mukherjee also describes the parallel efforts in the domain of English education by Rammohun himself. The government stepped into the sphere later, on account of the popular enthusiasm in the matter. It is a little curious however to find the inclusion of the Asiatic Society, the Agricultural and Horticultural Society, and the Medical and Physical Society in the chapter on 'Official Enterprise'.

On religious reform, our author points to the existence of 'many heterodox religious groups and sects' in 18th century Bengal against polytheism, idol-worship and even caste. Their connection with the religious storm in the 19th century cannot of course be established and such ignored sects may very well have existed in other provinces and periods as well, so the mention does not amount to anything significant in the present context. Dr. Mukherjee's considered verdict (p. 197) is that Rammohun's movement created only 'a temporary stir' in Bengali society without 'any abiding result'. This certainly is controversial. True, the Brahmo religion never became a powerful mass movement; but then the same limitation may be said to apply to our entire 'renaissance', largely an affair of the Hindu *bhadralok* elite. After all, the religious message of Rammohun did deeply affect all educated thinking people, as witnessed almost universally by 19th century writers. Ideas are measured by their contribution to the mental climate of an age, rather than by counting the votaries. And the rich modernity of Rammohun's thought which is obviously a new thing, is too often missed by our historians. In fairness to Dr. Mukherjee, it may be noted

that he has given to Rammohun as many as 64 pages out of a total 78 in his chapter on religion, hardly a testimony to an ephemeral impact.

The title 'Reform and Regeneration' does not seem quite happy. There was little of major 'reform' in the period under review, still less of actual 'regeneration'. The phrase in the Foreword (p. viii), a 'prelude to the Renaissance in Bengal', would have been an apter description of the contents of the volume.

It can be added that the great bulk of the book is devoted to the second half of the period chosen, the less familiar first half seems to have escaped fuller exploration. For instance, the labours of the Asiatic Society which must have fostered Indian pride in the achievements of antiquity, the Indian contributors to the *Asiatic Researches* from the very beginning, Indian scholars who gathered round William Jones, Indians who assisted in the Himalayan explorations and so on need not have been completely passed over.

Without detracting in any way from the value of the present work, a few minor slips may be noted in passing. It is strange to be told that 'the English people were not more foreign to the Bengalees than the Hindusthanis, the Sikhs, the Rajputs and the Marathas were' (p. 364); who indeed would believe this? Krishna Pal could not very well have been 'the first Bengalee convert to Christianity' (p. 132); Christian missions had worked in Bengal before Carey. Is it again not rash to remark—'the establishment of British rule in Bengal was accompanied by a bourgeois social revolution' (p. 15)—a dictum which even Marxists would not accept?

S. C. SARKAR

SIR WILLIAM JONES: A STUDY IN EIGHTEENTH CENTURY BRITISH ATTITUDES TO INDIA—By S. N. Mukherjee (Cambridge University Press, 1968). Pp. viii + 199.

Mr. S. N. Mukherjee's slim volume, a worthy addition (No. 6) to the Cambridge South Asian Studies Series, is an attractive account of a fascinating and outstanding personality in 'Anglo-Indian' history. The author has not aimed at 'a definitive biography' of William Jones, but claims to offer a review of 'his ideas about India and her civilization', and his impact on 'British attitudes towards India'. The work draws heavily from Jones' private correspondence (the *Spencer Papers* in particular) and the material preserved largely in manuscript form in over a dozen libraries and record offices. We have here a real addition to knowledge, collected with commendable care and presented with critical restraint.

The sub-title is a little misleading. One would have expected from it a fuller and more adequate analysis of British attitudes on India, a more cogent and penetrating review. We are offered instead a brief opening chapter, rather perfunctory and not very well-arranged either. The six chapters which follow are, on the other hand, of true merit with much information from all available sources illuminating the main subject—the life, ideas, achievements of the memorable Sir William Jones (1746-1794).

Chapters 2-4 sketch Jones' life in England prior to the passage to India in 1783. Brought up as a child prodigy by his widowed mother, entering Harrow in 1753 and the University College at Oxford in 1764, the young William learned Arabic and Persian even in student days largely from the

Syrian Mirza whom he maintained at Oxford. From 1765 to 1770, he was tutor to George John Spencer, the Althorp heir, but he freed himself from the engagement for his 'love of liberty', continuing however the friendship with the Spencer family till the very end. From his classical training, Jones drew an abiding love for Cicero and Demosthenes, prizing above all their opposition to tyranny and the gift of eloquent expression.

His fame as an Orientalist was established by his translation of the *Tarikh-i-Nadiri* (1770) and *A grammar of the Persian language* (1771), followed by many more writings; this reputation brought him the Fellowship of the Royal Society in 1772 and the membership (1773) of Dr. Johnson's exclusive club of intellectuals. He developed a love for Asiatic civilizations which marked him for life. He was also a minor poet, with classical tastes but some romantic leanings. Moving in high circles and yet an 'outsider', William Jones humourously could call himself in a letter to the young Althorp as a 'philosopher among courtiers'. But love of independence drove him from the 'courtiers' to a legal profession where he was not financially a great success, though his translation of the *Speeches of Isaeus* (1779) and a major work on the *Law of Bailments* (1871), a study incidentally in comparative law, won for him a place in Roscoe's *Eminent British Lawyers*.

The mature Jones, described by Horace Walpole as 'a staunch Whig, but a very wrongheaded one', was close to the 'extreme' radicals like Price and Cartwright, before the French Revolution of course; he was however against anarchy as shown by the Gordon Riots. Jones supported the American cause and opposed the slave trade. But his chief achievement in politics was the *Dialogue between a Scholar and a Peasant in 1782*, which took up a challenge to make 'the first principles of government' intelligible even to plain illiterate people. This pamphlet ran into nine editions, was publicised by the Society for Constitutional Information, and won for him the honorary membership of the Society. The State is a free society of the whole community, law is the aggregate will of the people, the magistracy is elective; the State represents in fact the same principles as even the familiar village club.

Much better known is the record of Sir William Jones in India (chapters 5 to 7), from his arrival as Judge of the Supreme Court in 1783 to an early unexpected death in 1794 even before fifty. His most solid work was of course the Asiatic Society which he organised in January 1784 to study Man and Nature in Asia, on the lines of the Baconian divisions of knowledge, Science and History and Arts, stemming from the faculties of reason, memory, and imaginations. In the Society he gathered round him the first isolated British Indologists in India, men like Halhed, Wilkins, Gladwin. William Jones as the president was indeed the life and soul of the Society and of the *Asiatic Researches* (from 1789), and he wrote illuminating discourses and papers about three dozen in number—for the first four volumes. Even Indian contributors were drawn in from the very beginning and the whole enterprise must have stimulated in English-educated Indians the sense of history and justifiable pride in Indian antiquity.

One may also recall Jones's contributions to the 'great discoveries' of the age in this field—the common origin of the 'Indo-Aryan' languages; the identification of Chandragupta Maurya with Sandracottas as the first sheet-anchor of ancient Indian chronology; the glory that was Sanskrit literature (he translated the *Sakuntala* in 1789).

In the field of law, Jones laboured in India for years in directing the compilation of an authoritative *Digest of Hindu and Muslim Law* by a company of Indian scholars whom he drew together. This was after the Justinian model (the Roman ideas in British-India administration deserve indeed an intensive study). Jones had to adjust his Whig convictions to the Indian

reality as the British conceived it to be. Self-government being impracticable for Indians (Jones disclaimed any intention of 'instructing the Gentoos with the maxims of the Athenians') and political freedom being unknown in the East, the correct policy seemed to men like Jones to lie in the maintenance of the 'necessary' absolute government, assuring the people at the same time an enlightened regime of security of person and private property, administering justice according to established usages which in the form of an accepted 'common law' might be taken as the traditional expression of common consent. This was the best that seemed possible, before Socialism broke through the concept of white superiority, introducing the democratic equality of all nations, an idea foreign to even the benevolent liberals of the earlier period.

Many other details have been ably presented by Mr. Mukherjee in an effective fashion and his book can be recommended as a reliable handy summary of the career and ideas of Sir William Jones, a century and three quarters after his untimely death.

S. C. SARKAR

AJANTA MURALS: Edited By A. Ghosh, Director-General of Archaeology in India: Illustrated text by Ingrid Aal, A. Ghosh, M. N. Deshpande, Dr. B. B. Lal; photographs By S. G. Tiwari, Published By Archaeological Survey of India, New Delhi, 1967. Engraved and printed at Sree Saraswatya Press Ltd., Calcutta, Price Rs. 80/-.

The very name of Ajanta has a magic spell for lovers of art and antiquity throughout the world. Hence the publication of any work on Ajanta is bound to be hailed with delight. Better appreciation of the murals is sure to be promoted by publication like the present one attaining a standard which the resources of the Archaeological Survey of India can only help to achieve in this country. Perhaps, for the first time the present well illustrated monograph visualises the art of Ajanta, in its manifold aspects in a handy but authoritative manner. As the previous publications are either out of print or their prices prohibitive, it will be welcome to the people and public institutions at large.

Undoubtedly it will be a valuable addition to the sumptuous and colourful publications which have been brought out in last one hundred years since the first publication of R. Gill's Stereoscopic photographs in *Rock-temple of Ajanta and Ellora* (1862) which was followed by J. Giffiths' two magnificent volumes, *The Paintings in the Buddhist Cave Temples of Ajanta* (London 1896), containing 159 coloured plates and 89 line drawings. Owing to technical limitations of the times, reproductions of paintings could not be made directly from the original, but from copies made by the students of the Bombay School of Arts, which were close to the originals. Lady Herringham's portfolio *Ajanta Frescoes* (Oxford, 1915), an improved publication in respect of coloured reproductions, obviously suffered from want of fidelity to the original paintings. So far as comprehensive numbers and quality of reproduction of blocks, complemented by authoritative texts was concerned, G. Yazdani's *Ajanta*, in four large portfolio's (Oxford, 1930, 1933, 1946, 1955) published under the auspices of the Nizam's Government, Hyderabad, including 77 colour plates, 55 outline drawings and 273

monochrome plates surpassed all previous publications. The supremacy of this series is expected to remain unchallenged in the field for some time to come. Other books and albums followed in quick succession, of which the most notable are UNESCO'S *India-Paintings from Ajanta Caves* (New York, 1954) and Madanjeet Singh's *Cave Paintings of Ajanta* (London, 1965), in excellence of production and textual presentation.

Besides 71 text pages the present album under review contains 16 monochrome and 85 coloured plates and 20 line drawings, mainly reproducing useful enlarged details. Discussed in eight chapters, the full text has been divided into Introduction, Artistic Appreciation, Historical Perspective, Sculpture, Murals: their theme and content, Composition and Technique, Preservation, supplemented by Bibliography and Index. Written as they are by eminent experts in their respective fields, this album will be indispensable for students and scholars, artists and connoisseurs alike. Shri A. Ghosh has edited the work with consummate skill, similarly in the Introduction he has endeavoured to present a precise but thorough bibliographical review since the discovery of the caves in 1819. Miss Ingrid Aal's approach and appreciation of Ajanta art has been expressed with rare insight and profound significance. Most commendable contributions have been made by Shri M. N. Deshpande who has enriched the volume with a very scholarly study of the historical perspective and sculptures of the caves and the theme and content of murals. The present reviewer only differs from him regarding two points viz., his emphasis on a purely Vākātaka style ignoring predominantly Gupta contributions and his view that the murals were completed by the 6th century A.D. The decadent style of some of the paintings of Cave II at least warrant us to infer that they may have extended to the early part of the seventh century. Anyway students are sure to benefit very much from the materials gathered so assiduously in this portion. Dr. B. B. Lall's observation on Composition and Technique of the murals is no doubt a valuable addition to the text and opens up a new field that should be further elaborated either by him or other competent experts in future. In this context we miss references to critical studies already made in this subject throwing more light on this highly intriguing problem. Dr. Lall pertinently dilates on the causes of sad deterioration of the murals, both internal and external. Is it too much to hope that even at this late stage, a herculean effort on an international level, like that of rescuing the Nubian temple of Abu Simbel from the engulfing waters of the Nile, may be undertaken to save the fast decaying glories of Ajanta or the crumbling ruins of Konarak ?

Except in the chapters written by Shri Deshpande diacritical marks have been omitted for reasons known to the editor. Besides insertion of a sketch map showing alignment of the caves for purpose of reference, bibliographical notes, at the end of each chapter would have added to the importance of the book and made it more useful for readers. Further it may be stated here that in spite of the availability of more advanced equipments and processing of photography and block making, the present album has unfortunately failed to reach the highwatermark in colour plates although adequate justice has been done to the monochromes not to speak of text printing. Most of the colour reproductions have a brown or reddish overtone at the cost of the blues specially; the lovely greens suffering consequently. We miss the brilliance of the lapislazuli blue of the originals as well. Apart from the tragic deterioration of the murals themselves, minute details are sometimes lacking, texture appears to be fuzzy and modelling flat, due perhaps to the deficiency either in the transparencies or in block making. Reproductions, it must be admitted, have their own shortcomings and can

seldom compete with the originals in developing the faculty of appreciation of art. Nobody can deny that it is well nigh impossible to capture the vastness and magnitude of the sprawling murals, their rapturous harmony of line and colours, their exquisite sensitiveness within the limited confines of a page of book on a miniature scale. So a limited appreciation is inevitable. Stressing this point regarding the limitations of developing appreciation through reproductions, Ingrid Aal rightly observes that the atmosphere inside the caves charged with spiritual resonance can never be faithfully reproduced. At best only "a grain of it survives the present mechanised process of colour reproduction; but even that one grain is enough to show that Ajanta belongs to the wonders of the world."

Before concluding, it may be pertinent to observe that the album could have been further enriched by incorporating some discussions on stylistic analysis of the paintings. Objective appreciation of Ajanta murals demands an approach based on gradual evolution of the paintings, in three well marked phases, covering about a thousand years of Indian art history viz., (a) the early period and its relationship with contemporary sculptures, (b) classical period and its abiding influence on the art of Central, Eastern and South Eastern Asia, and lastly (c) the late period which though manifestly betraying signs of decadent mannerism was yet impregnated with seeds of future development of painting, both mural and miniature, in mediaeval India not excluding the periphery areas of Ceylon, Nepal and Tibet. It may further be added that the coloured plates of the album, important in their own way, have tried to focus attention on details only, instead of including within their orbit the sweeping panoramas like the Vessantara Jataka of Cave XVII in which the story telling function of Ajanta is fully revealed and for which it is singularly famous.

The present album, in general, has been successful in meeting a longfelt want. For this laudable venture the Archaeological Survey of India is to be congratulated.

D. P. GHOSH

FOUR ESSAYS ON THE POETRY OF YEATS—By S. C. Sen (Visva-Bharati, Santiniketan, Price Rs. 12/-).

Professor S. C. Sen needs no introduction in our world of scholarship. Here he presents four essays on the poetry of W. B. Yeats. The first is on the Irish Element in the Evolution of the Poetry of W. B. Yeats, the three others are on his love Lyrics, The Time-Theme in the Poetry of Yeats and A critical study of Yeatsian Vocabulary. Readers may be misled by Dr. Sen's disarming modesty, a rare virtue among our academics and scholars. But unforbidding as the essays are, they are sure to be of use to our readers of the poetry of a great modern poet.

BISHNU DEY

STUDIES IN WESTERN INFLUENCE ON NINETEENTH CENTURY BENGALI POETRY
By Harendra Mohan Das Gupta. Additional notes and annotations
By Kalyan Kumar Das Gupta. Semushi, 42-1A, Sarat Bose Road,
Calcutta 20, 1969. Pp. XXIV+243, Rs. 15/- only.

This is the second edition of a work first published as far back as 1935. The re-print has been made possible by a generous government grant, and this new impression has been enlarged by additional notes supplied by the deceased author's son—an act of filial piety which has enriched the book by making it up-to-date and also by giving valuable new information.

The two most striking features of the book are the author's maturity of judgement, although he wrote it in his early thirties, and his sobriety of outlook and sense of proportion. It is a work on poets predominantly romantic, but the author's treatment is marked by the classic qualities of balance, restraint, sanity and love for the golden mean. The book conveniently divides itself into two sections: The Introduction, consisting of two chapters, dealing with the Bengal Renaissance and its impact on culture and poetry, followed by nine chapters which study the life and work of four nineteenth century poets—Madhusudan, Hemchandra, Nabinchandra and Biharilal. What is most remarkable is that the author never loses sight of the wood in the trees or of the trees in the wood. Both an Anglophil and a nationalist, he delves deep into influence of Western Culture on nineteenth century Bengali poetry but he neither exaggerates nor underestimates this influence.

It is a pioneer work, and although more than three decades have passed since the first publication, it has not dated. This is largely because the author's ripe scholarship is sustained by native literary sense. He makes a critical distinction between the impact of Mohammedan and British Imperialism, and also shows how the Bengal Renaissance, unlike its fifteenth century counterpart in Europe, followed the Reformation instead of preceding it.

Of the four leading poets considered by the author, Michael Madhusudan alone can claim to be a major figure whose work the Bengali reading public will not willingly let die, the other three are now more important for their historical role than for the intrinsic quality of their poetry. The author is conscious of this difference and views all these poets in proper perspective, making illuminating comments on all of them. He shows how Madhusudan's poetry achieves intensity because there epical breadth is enlivened by lyrical poignancy. And he thus pithily sums up the position of Hemchandra: "The man was greater than the poet, the moralist higher than the artist." Although retaining his objectivity of approach, the author is somewhat partial to Nabinchandra, occasionally mistaking Nabinchandra's idealistic conceptions for poetical achievement. It is the chapters on Biharilal that best show the author's grasp of poetry and philosophy. It is Biharilal of all these poets who was most deeply influenced by English romantic poetry, and he has most subtly pursued the light that lies beyond sea or land, the unseen reality that is behind sensuous appearances.

The publisher has added an illuminating Bengali essay on Nabinchandra by the author to this second edition. A Bengali translation of the entire book will be a valuable addition to our critical literature.

THE UNWRITTEN SONG: Poetry of the Primitive and Traditional Peoples of the World. Edited, in part retranslated, and with an Introduction By Willard R. Trask, Vol. II. The MacMillan Company, 1967.

Written poetry is like a flower that smiles in a man-made garden. But we know that beautiful flowers also blush, though unseen, in the forests. Similarly, there might be poetry that is unwritten and yet a good representative of the family of commodities called "poetry" or "literature". Matthew Arnold defined poetry as the "criticism of life". If we apply this criterion of good poetry on the "floating literature" or the "unwritten poetry" of the primitive tribes and the illiterate rural folks of the world, we find that these poems can also interpret life. They can also represent the life of the illiterate people who use these poems as their songs. Moreover, the language used in this floating or unwritten poetry is capable of evoking feeling, and is an adequate medium of aesthetic expression to be enjoyed with a degree of detachment. We have therefore to admit that these songs of the primitive tribes and the traditional peoples of the world are also capable of producing good poetry.

This point has been sufficiently vindicated in the present book which contains English versions of some good specimens of floating literature collected from different parts of the world. The present volume covers Asia, Polynesia, Micronesia, North America, Central America and South America. The poetic beauty of the original songs has not been wholly lost in the translations. Apart from providing good literary specimens, these songs also show that there is an agreement in the topics, imageries and culture traits used in them, although these are the songs of peoples who live in distant parts of the world.

S. BHATTACHARYA

STONE IMAGES OF VISHṆU FROM MURŚIDĀBĀD DISTRICT

S. R. DAS

(Communicated in June, 1969)

Several stone images of Vishṇu have been recovered from different parts of the district of Murśidābād, West Bengal. The present report relates to hitherto unrecorded three black stone images of Vishṇu, two of which have been recently acquired by the Department of Archaeology of the University of Calcutta from the village named Amṛitakuṇḍa (Amarkuṇḍa), Murśidābād district (Fig. I).

During archaeological reconnaissance in the Rāḍha tract on the western side of the Bhāgīrathī we came across an old dilapidated brick temple by the side of the house of the priest Sri Harakumar Misra of the village Amṛitakuṇḍa (Pl. I; Pl. V of the introduction). The roof of the temple has fallen down. But its front portion with lime plaster is extant. The stone lintel and door jambs are elaborately ornamented. The jamb on the left side of the door bears a short figure inside a carved niche. The upper portion of the temple as illustrated in Pl. V (of the introduction) presents its complete picture in ruins.

It was learnt from the local sources that the said temple was built long ago by the villagers and that on its decay the enshrined images were removed to the outer apartment of the priest's house. About a dozen of large and small images (three of which partly damaged or broken) were found arranged in a single row upon one wooden platform. Through the courtesy of Sri Dhirendra Nath Bag, two partly damaged Vishṇu images were presented by the priest Sri Misra and the villagers to the Department of Archaeology. Sri Misra informed us that all these images were recovered from a nearby tank where they were thrown by the devotees on the approach of Kālāpāhād. Besides the images acquired by the Department, another image of Vishṇu under worship was photographed there for a comparative study.

Both the images presented to the Department are partly damaged. The lower portion on left of the image No. 3 (Pl. III) was found missing at the time of its acquisition. From the village Mādhuniā several stone sculpture fragments were also acquired through the courtesy of Sri Dhirendra Nath Bag. After returning to Calcutta, while examining those fragments, a broken part of a black stone image was found. From the nature of the broken part, I presumed that it might be the missing portion of the very image acquired from the village Amṛitakuṇḍa. The presumption was found correct and the broken part was affixed in good order. The said image of Vishṇu is now in perfect condition (Pl. III).

All the three images of Vishṇu under discussion here were carved out of hard black stone obtained from the Rājmaḥal hills. The image No. 1 (Pl. Ia) with its plain-cut rectangular stele measures 9" × 4". Its right side and lower part are partly broken. The central figure is moderately ornamented and wears a conical crown. The main figure with its characteristic round face and broad nose is flanked by two attendant figures, the one on left is only extant. Above the side figure are the representations of two tigers (*śārdūla*), one on each side. At the top of the stele, the central vegetal device is flanked by two full bloomed lotuses. The central figure wears a necklace consisting of three beaded chains with a hanging locket. The girdle is plainly ornamented. The *vanamālā* (a garland or chaplet made of wild flowers) hangs

down up to the knee. The drapery folding has been indicated by prominent slanting lines with a row of beads inside each of the lowermost ones. The four hands of the figure hold the usual attributes. The *gadā* (mace) held by the lower left hand rests on the lotus seat. The crudely carved pedestal is perhaps *triratha* in form. The central figure and the extant side figure rest on crudely carved lotus seats. The side figure on left stands in a *bhaṅga* posture. Its face is also rounded and the head wears a beaded ring. Behind the central figure is the carved trefoil device resting on two horizontal lines above the side figures on both sides. In general, the workmanship of the image is not of a very high order, and its dating on stylistic grounds is most problematic. But in consideration of the nature and form of the stele the image may be ascribed to c. eighth century A.D.

The image No. 2 (Pl. II) consists of a tapering or conical stele with two flying figures (*vidyādharas*) on both sides and *Kīrtimukha* in the centre, *pañcharatha* pedestal and moderately ornamented central and side figures resting on lotus seats. The central lotus seat rests on vegetal devices flanked by two kneeling Garuḍa figures with folded hands. The face of the central figure is oval and the nose is long and pointed. The head wears a conical crown and the ear-lobes hang downwards. Four hands of the main figure hold the usual attributes. The *gadā* (mace) and *chakra* (wheel) are held by the left upper and lower hands and *śaṁkha* and *padma* by the hands on right. The *vanamālā* covers the knee. The ornamentation consisting of necklace, armlets, bangles, etc., have been most moderately carved. The drapery foldings have been indicated by beautifully carved lines. Four side figures are in usual *bhaṅga* postures and their drapery extends up to the ankle. The pedestal is simple and bears little decoration. The tapering tang-projection is meant for insertion. On stylistic ground the image may be attributed to c. tenth century A.D.

The example No. 3 (Pl. III) is a typical Viṣṇu image belonging to the Pāla-Sena period. It measures $1'10\frac{1}{2}" \times 10\frac{1}{2}"$. The pedestal, stele and carved figures are all profusely ornamented. The *pañcharatha* pedestal bearing five lotus seats is luxuriously decorated with floral and vegetal devices. The kneeling Garuḍa figures with folded hands are similar to those of the image No. 2. The elaborately decorated conical stele with its tapering end bears carved figures of animals and birds on both sides. At the middle portion of the stele above the side figures there are two horizontal lines on which rest elephants, tigers, front portions of the *makara* and *hamsas* holding a flower replica or pearl necklace (*gaja-śārdūla-makara-hamsa*), one above another in succession from the lower part. The central figure bears a lovely facial expression with a long and sharp nose and wears a profusely ornamented trefoil conical crown, beaded necklaces, armlets, bangles, girldle and hip ornaments, *vanamālā*, etc., all displaying fine workmanship. The *vanamālā* hangs below the knee. The drapery is also elaborately decorated. The attributes are held differently—different from the patterns of holding in images Nos. 2 and 1. The upper and lower hands on right hold *gadā* and *śaṁkha* and those on left, *chakra* and *padma*. The side figures also display fine workmanship and their drapery touches the ankle as in image No. 2. They stand in their usual *bhaṅga* poses. But the posture is different from that of the image No. 2. The tang-projection is shorter than that of the image No. 2.

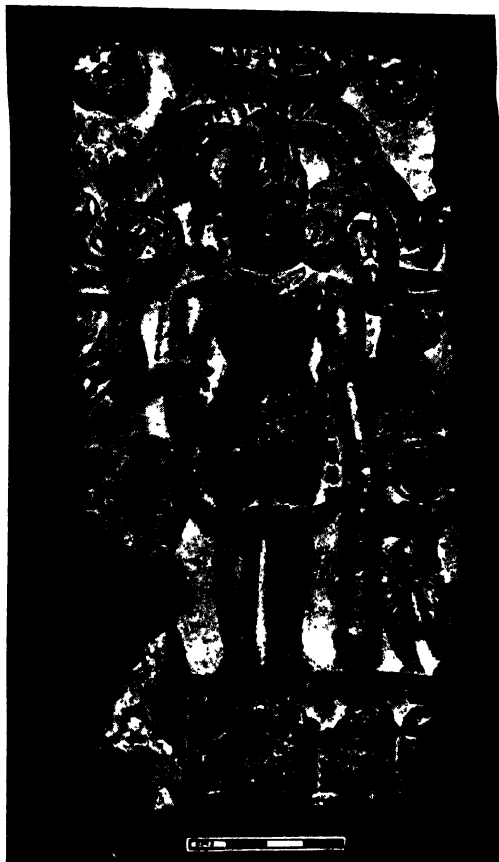
The central figure in all these three examples is the four-armed Viṣṇu, each hand holding the usual attributes, *śaṁkha*, *chakra*, *gadā* and *padma*. But the pattern of holding the attributes is not uniform in these three examples. The downward extent of the *vanamālā* in the three images is also different: up to the knee in image No. 1, covering the knee in image No. 2 and below the knee in image No. 3. In images Nos. 2 and 3 Viṣṇu is represented along

with his four *parivāradevatās* (family deities). But in image No. 1 we have only two attendant deities (of which the one on left is only extant). The carved figures of image No. 3 bear clean cut features and luxurious ornamentation. The pedestals of the images Nos. 2 and 3 are alike; the pedestal of No. 2 bears, however, a moderate decoration. But the pedestal of the image No. 1 is perhaps *triratha* in form without the usual decoration and Garuḍa figures. The stele of the images Nos. 2 and 3 are conical. But the stele of the image No. 1 is a plain-cut rectangular block of stone bearing little decorative devices. Further, the stele of the image No. 3 is elaborately decorated with carved figures of animals and birds on both sides. These are absent in image No. 2.

Stylistically, these three images may be attributed to a period ranging from c. eighth century A.D. to c. eleventh-twelfth century A.D. The characteristic features of these images delineate the evolutionary trends in stone sculptural representations of Viṣṇu in Bengal. Of the three images of Viṣṇu, No. 1 is the earliest one (c. eighth century A.D.) and the image No. 3 is the latest in dating (c. eleventh-twelfth century A.D.). The image No. 2 is to be placed in between the dating of these two images, *i.e.*, c. tenth century A.D. The image No. 3 is similar to many other stone images of Viṣṇu recovered from different parts of Bengal.

In this connection, an interesting reference may be made to the discovery of an inscribed fragmentary pedestal of a stone image of Viṣṇu, a report on which was communicated to the Society's monthly meeting in December, 1968. On palaeographical grounds, the said inscribed pedestal is to be attributed to c. eleventh-twelfth century A.D. This inscribed pedestal is almost analogous to the pedestal of the present image No. 3 (Pl. III). Accordingly, the image No. 3 may be confidently attributed to the same period.

The recovery of a good number of stone images of Viṣṇu from different parts of the Rāḍha tract of the district of Murśidābād discloses the revival of Brahmanism, more particularly of the worship of Viṣṇu, during the later part of the Pāla rule in Bengal.



(a) Image No. 1: Black stone image of Vishnu from Amritakunda.



(b) Amritakunda: Temple in ruins with extant ornamented stone lintel and door jambs.

PLATE II



Image No. 2: Black stone Vishnu image from Amritakunda.



Image No. 3: Black stone Vishnu image from Amritakunda.

A FRIEZE OF TERRACOTTA BIRDS

S. R. DAS

(Communicated in July, 1969)

The present communication is a report on the discovery of one hitherto unrecorded terracotta frieze of birds, along with certain observations on their identification, dating and purpose.

The frieze under discussion contains a row of terracotta plaques. Each plaque measuring 4.01 × 4.01 cm. bears the representation of a single bird (Pl. I; Pl. II). All the plaques illustrated here were retrieved singly from an area measuring 8' × 8' in one particular trench (Tr. B⁵) during excavations at Rājbaḍidāṅgā (Mursīdābād district, West Bengal). Altogether twelve pieces were recovered and after mending these fragments, it was found that they form parts of a long band comprising birds arranged in pairs (Pl. II).

The birds on these square plaques are all alike. It implies that they were all extracts from one particular mould. The frieze is incomplete and only ten pieces could be mended. The band thus mended consists of ten plaques, each containing one bird (Pl. II). Two such jointed plaques form the complete picture of a pair of birds. The birds on two jointed plaques stand face to face, almost touching each other's bills holding strings of beads or pearls, and each pair of birds again stands back to back in a row (Pls. I, II).

The bird is a short one measuring 3.00 cm. in length. Its mouth has been indicated by a cut dividing the culmen into two ridges, the upper one being thicker than the lower. It has a long and gracefully carved neck. The eye has been portrayed by a deep incised circle with a bold dot inside. It appears that the hair of the bird has been made into a tuft. It has a fan-shaped tail covert. The legs are short with webbed foot toes. Its plumage was originally pure white. This is firmly attested by the extant traces of white colour-coating (Pl. I).

It is indeed extremely difficult to identify the bird represented on the band in pairs. Judging from its size, bill, curved neck, legs, webbed toes, plumage and other physical characters, the bird in question may be identified with the *hamsa* (goose or swan). But the difficulty arises in regard to the presence of the tuft of hair. In earlier times, the goose used to be represented in its natural form. But in later periods, its form became considerably stylized. The tuft of hair, fan-shaped foliated tail, *etc.*, might be recognized as conventionalized forms.

The *hamsa* figures prominently in both Brahmanical and Buddhist literature and art creations as a sacred bird. In the *Rigveda*, the *hamsa* is described as the vehicle of Aświns. But in the epics and the *Purāṇas* this bird is the *vāhana* of Brahmā, the God of creation. From the *Mahābhārata* it is learnt that Prajāpati taking the form of a *hamsa* pervaded the world. In the *Upanishads* the *hamsa* stands for *ātman*.

In the Buddhist texts the *hamsa* is the most honourable and sacred bird of excellence. In Buddhism the goose is very closely associated with the enlightenment of the Buddha. From the *Jātaka*s, it is learnt that *Bodhisattva* was reborn in the form of a *hamsa*. Besides, the geese are also recognized as ardent disciples of the Buddha. Because of the bird's close association with the Buddha and Buddhism, the *hamsa* is found most commonly represented in Buddhist art-creations, both sculpture and painting.

Beginning from the Maurya period, the *hamsa* figures in various patterns on pillars, caskets, building platforms and also in paintings. The Mauryan pillars at Lauriya-Nandangarh, Sāñchi and Rāmpurwā bear the representa-

tions of the geese in their natural forms. From Kāshmir an admirably decorated platform bearing a wonderful representation of a procession of geese, each holding a lotus stalk and walking from left to right, has been discovered. The Anurādhāpur (Ceylon) 'Moon-stone' contains also a remarkable illustration of a procession of geese. In South Indian art products of the Pallava period the geese appear prominently. The Sāñchi and Eran pillars of the Gupta period also contain representations of geese. Even in paintings the drawing of the *hamsa* is a common device.

In respect of the terracotta *hamsas*, a particular reference may be made here to those discovered during excavations at Pāhāḍpur (Rājsāhi district) and Maināmati (Comilla)—both in East Pakistan. The Pāhāḍpur examples are found in various postures, *such as*, at rest, at toilet, *etc.*, and also holding strings of beads or pearls. The wings of the bird have been sometime treated in a conventional pattern. The Maināmati examples are almost similar to those from Pāhāḍpur. But the Pāhāḍpur and Maināmati terracotta *hamsas* are different in form and character from the Rājbadīdāngā examples under discussion.

The present examples of terracotta *hamsas* were recovered from stratified diggings at Rājbadīdāngā. All the pieces were retrieved from one particular layer deposition 3 at a depth of 3'4" below surface (Pl. III). The associated finds comprised fine polished sherds, stucco heads, inscribed terracotta seals and sealings, *etc.* On the strength of the inscribed terracotta seals, the level yielding terracotta birds may be confidently ascribed to c. sixth-eighth century A.D.

Originally, these terracotta fragments of *hamsas* formed a band with rows of these birds, perhaps used as a decorative pattern bearing religious significance. The band was fixed on the body of an earthen pot, possibly a sacred vessel. This presumption is fully borne out by the extant parts of the rim of the vessel at the top of two plaques (Pl. I). Further, the nature of the reverse surface of these plaques reveals that they were originally fixed on an earthen vessel.

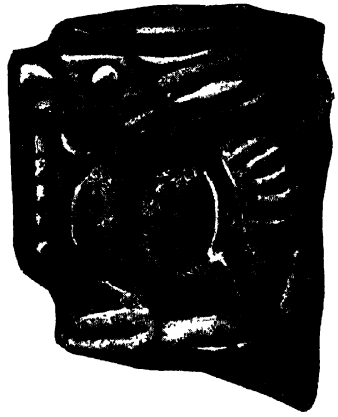
This kind of representation of *hamsas* on the body of a sacred vessel reminds one of the geese figuring on the guilt bronze casket discovered from Peshawar and also of the figure of *hamsa* from Taxila. On the lid of the Peshawar relic casket, six geese are found flying with wreaths in their bills, perhaps performing *pradakṣhiṇa* (circumambulation) around the relic of the Buddha. Besides, Cunningham discovered from Taxila a circular stone box (1' in diameter and 3" in depth) with a cover, a slab of sand stone. Inside the box was found a hollow crystal figure of a *hamsa* and a thin gold scroll which refers to Buddha's relic. Another crystal neck of a goose was discovered from *Dharmarājika-stūpa* (Taxila). Like the relic casket of Peshawar, the terracotta band of *hamsas* from Rājbadīdāngā might have analogous religious bearings.

The *hamsa* has been always a popular decorative device bearing religious significance. It is indeed a living emblem of purity and virtue. Now it is known for certain that the excavated site of Rājbadīdāngā was once a great seat of Buddhist monastery establishments. The site under excavation has been firmly identified with the illustrious *Raktamrītīkā-mahāvihāra* described by Hiuen Tsang in the seventh century A.D. These terracotta birds identified with *hamsas* discovered from the site might be also closely associated with the Buddha and Buddhism. It is quite possible that this band of *hamsas* was once fixed on a sacred earthen pot containing perhaps sacred relics or any other objects bearing religious significance.

This particular kind of a frieze of terracotta birds is yet unrecorded and as such, its discovery from Rājbadīdāngā is full of historical import.



(a)



(b)

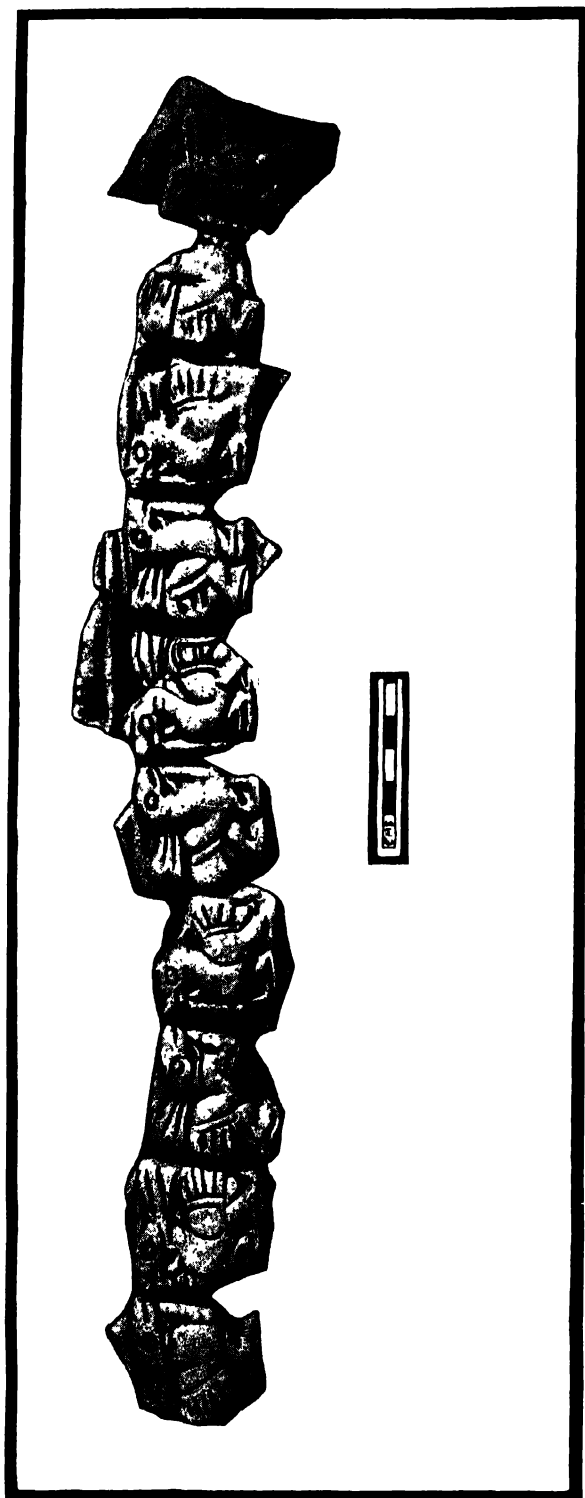


Terracotta Birds from Rājibādīlāṅgā:

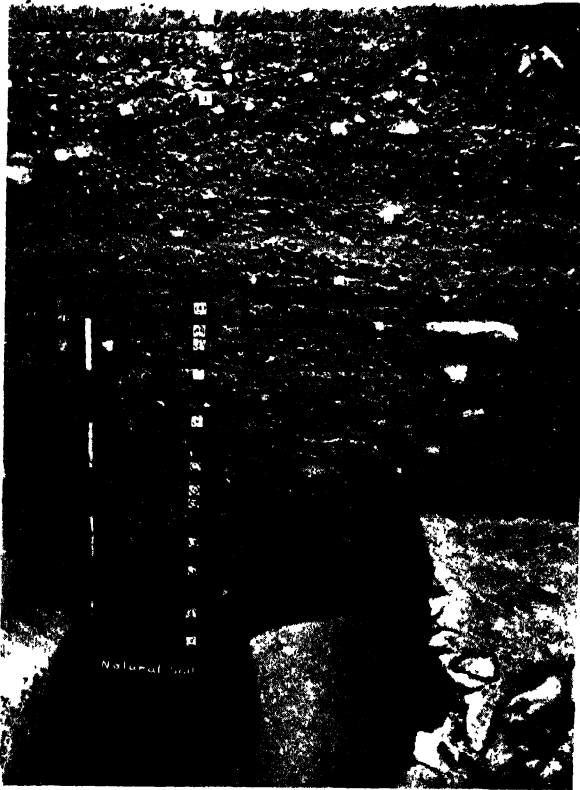
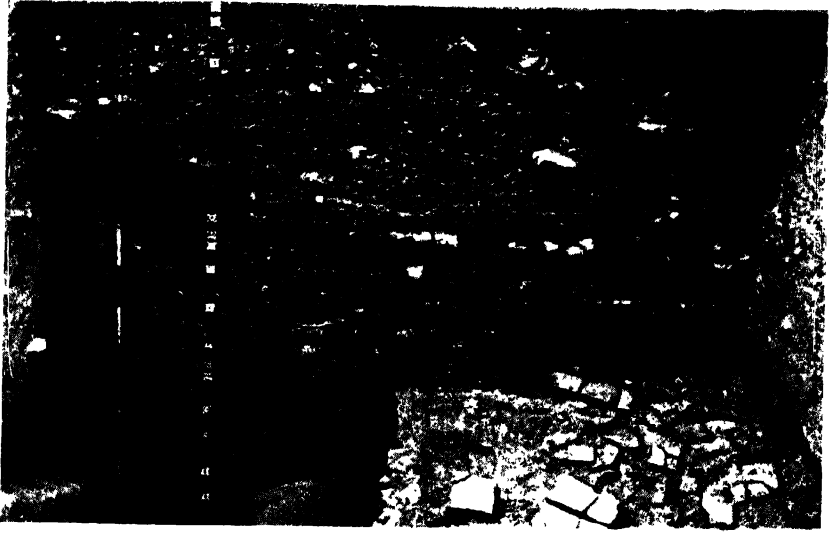
(a & b) Two separate pieces of terracotta birds as retrieved during excavation.

(c) A pair of birds formed after mending.

FRIEZE OF TERRACOTTA BIRDS]



A frieze of terracotta birds after mending.



Rājbadidāngā; Tr. B⁵:

- (a) Cuttings: section facing north showing the layer deposition yielding terracotta birds.
- (b) Cuttings: section facing north showing deep digging in the trench up to the natural soil.

A MINIATURE METAL IMAGE OF GAṆEŚA

S. R. DAS

(Communicated in August, 1969)

The discovery of metal images of Gaṇeśa has been reported from different parts of Bengal. Excepting some miniature metal images of Gaṇeśa recovered from several casual diggings and one from the excavation at Pāhāḍpur, there is hardly any stratified example. The stratification of the Pāhāḍpur image of Gaṇeśa is not also exactly known. The present communication relates to the discovery of a beautiful miniature 'octo-alloy' image of the elephant-headed God Gaṇeśa from stratified diggings at Rājbaḍidāngā (Murśidābād district, West Bengal).

The present metal image of Gaṇeśa is partly corroded. The figure in *Mahārājāḷilā* posture is seated on a rectangular pedestal measuring 3.03×1.03 cm. The total height of the image is 6.00 cm. This is a four-armed figure, each arm holding an attribute. But all the attributes are not distinct. It appears that the upper right and left hands hold *triśūla* (trident) and *mūlaka* (radish) and the lower right hand, *modaka* and the left one, perhaps sweets or a pot. The trunk is exceptionally a long one with a bend towards right touching *modaka*, as if engaged in drinking. The belly with the sacred thread is very prominent. The rat-vehicle resting below right foot is extant. Below, on right, there is the representation of a short figure with folded hands, perhaps a devotee. Along the lower edge on right, there is possibly the figure of a standing lion (?) and below, on left, perhaps a human skull (?). The halo behind stands as an arch over the figure and bears a floral motif at its central summit (Pl. Ia; Pl. II, *c* and *d*).

This image of Gaṇeśa was discovered at a depth of 2'8" below surface, in close association with two other metal images of the Buddha imbedded in a huge pottery deposition covering earlier structural remains comprising a long wall and *surki*-rammed floor (Pl. I, *b*). This pottery deposition yielded a number of inscribed terracotta seals and sealings belonging to c. sixth-ninth century A.D. Accordingly, the pottery-pit may be also attributed to the same period. On the basis of this dating, the present miniature image of Gaṇeśa may be also ascribed to the same period. This stratified dating is quite compatible with the stylistic pattern of the image. The arch-shaped halo luted to the image is an earlier innovation belonging to c. seventh-eighth century A.D. Subsequently, the halo became oval and solid. Therefore, the present image may be confidently attributed to c. seventh-eighth century A.D.

Metal images of Gaṇeśa, exactly analogous to the present example, are not known. The two extant figures (man and animal) below on right are unique features of this image. In this context, a particular reference may be made to the discovery of a well-preserved miniature metal image of Gaṇeśa from Hālud-*vihāra* (near the market place of Dvipgañj in Rājsāhi district and eight miles south of Pāhāḍpur) hardly referred to in any important publication. During 1930-31 the site was visited by late G. Chandra who reported the recovery of the image from one of the casual diggings at the mound of Hālud-*vihāra*. The mound measures 215' and 135' from east to west and from north to south respectively. The height of the mound is about 35' from the ordinary ground level. Frequent operations of the brick-hunters have also exposed several structural remains. This very image was discovered by a local resident from one of these occasional diggings (Pl. II, *b*).

The image from Hālud-*vihāra* is 2.5" in height. It is a seated figure of four-armed Gaṇeśa in *mahārājalilā* posture on a circular lotus pedestal. Each of the four hands holds *triśūla*, flower-bud, *kalpalatā* (creeper of paradise) and sweets. The trunk is short and bent towards right. The circular pedestal bears a lotus motif. The rat-*vāhana* is seen below the right foot. The oval solid halo bears beaded decoration along its edge (Pl. II, *b*). The image has been attributed to the eighth-ninth century A.D. Hālud-*vihāra* was also a great seat of the Buddhist establishment, and the site is reported to be similar to that of Pāhāḍpur.

The Pāhāḍpur (Rājsāhi district) metal image of Gaṇeśa is, however, different from both the Hālud-*vihāra* and Rājbaḍidāngā examples. The attributes, pedestal, trunk, *etc.*, are all dissimilar (Pl. II). Each of the four hands of the Pāhāḍpur image holds radish with leaves, axe, rosary and sweets (Pl. II., *a*). The halo behind is, however, similar to the Hālud-*vihāra* example. But the pedestal of the Pāhāḍpur image is plain and circular in three tiers, and the trunk of the deity bends towards left. The image has been ascribed to the eighth-ninth century A.D. Two other miniature octo-alloy images of Gaṇeśa have been reported from Raghurāmpur (Dacca district, East Pakistan). Both the images are 2" in height. One of these images is seated in *mahārājalilā* posture on a lotus seat. The rat has been represented near the feet. The lower and upper hands hold *kalpalatā*. The upper portion of the fringe is like an arch over the figure. This is an exquisite Gaṇeśa image. The second figure is very much corroded. Excepting holding *modaka* by the lower right hand, other attributes of the image cannot be properly distinguished.

As to the making of the metal images it is now generally believed that Pāhāḍpur was a centre of metal-casting, and the Hālud-*vihāra* example might have been a derivation from there. But the Rājbaḍidāngā specimen is distinctly different in nature and character from both Hālud-*vihāra* and Pāhāḍpur images. It appears that like Pāhāḍpur, Rājbaḍidāngā was also a centre of metal-casting. This contention is attested by the discovery of some other metal images, smelting pots, copper lumps, *etc.*, during excavations at the site. In fact, every important Buddhist monastery establishment had a centre of metal-casting of its own and the images were perhaps made under the direct supervision of the monks.

It is very significant to note that the miniature metal images of Gaṇeśa have been mostly recovered from the Buddhist sites. That the Buddhists also deified the Hindu deities is quite well-known. Gaṇeśa as the bestower of success and protector against evils was worshipped by the Hindus and the Buddhists alike. In the later phase of Buddhism, Gaṇeśa under the name of *Vināyaka* became an important Buddhist deity. At the same time, there are positive indications regarding an aversion to Gaṇeśa in both Buddhist texts and sculptural representations. Gaṇeśa has been also described under the name of *Vighna* or obstacle, and in some sculptural representations the Buddhist deities have been actually represented as trampling upon him. In spite of such contradictions, the images of the Buddha and Gaṇeśa were perhaps worshipped concurrently in Buddhist shrines. This is also attested by the nature of the discovery of the images of the Buddha and Gaṇeśa in association at Rājbaḍidāngā. It is indeed extremely significant to note that two images of the Buddha and one of Gaṇeśa were found at one place (Pl. I, *b*). It may be presumed that these images were perhaps thrown-outs in the pottery-pit and the possibility of these figures being taken out from one particular shrine cannot be also ruled out. It may be further assumed that this image of Gaṇeśa might have been taken out of a Hindu temple and those of the Buddha from a Buddhist shrine. But this is a remote possibility.



(a) Front view of the metal image of Ganeśa from Rāṣṭrādīdāngā.



(b) Rāṣṭrādīdāngā, a view of the locus of the metal images including one of Ganeśa.

MINIATURE METAL IMAGE OF GANEŚA]



Metal image of Ganesha from Pāhādpur.



(b) Metal image of Ganesha from Hālud-Vihāra.



(c) Another front view of the metal image of Ganesha from Rājābādīdāngā



(d) Side view of the metal image of Ganesha from Rājābādīdāngā.

It is now known for certain that Rājibāḍidāṅgā was the site *par excellence* of the illustrious Buddhist monastery *Raktamṛittikā-mahāvihāra* described by the Chinese pilgrim Hiuen Tsang in the seventh century A.D. The present image of Gaṇeśa was perhaps worshipped along with other images of the Buddhist deities in one of the shrines of this great monastery. The Tāntric affiliation of the present miniature image of Gaṇeśa is amply borne out by its characteristic features and associated figures and motifs. Here is an indication of the influence of Tāntricism in later phase of Buddhism and also of the religious synthesis created by the Buddhists. In this context, the discovery of this miniature metal image of Gaṇeśa from stratified diggings at Rājibāḍidāṅgā is extremely significant.

A FRAGMENTARY CARVED STELE FROM MURŚIDĀBĀD DISTRICT

S. R. Das

(Communicated in September, 1969)

The present communication relates to the recovery of a sand stone stele bearing wonderful carved figures and motifs in low relief. The stone slab was discovered while digging a tank in the village Mādhuniā (Murśidābād district, West Bengal). Sri Dharendra Nath Bag of the said village presented the stele to the Department of Archaeology of the University of Calcutta.

The upper part of the stele appears to have been cut by a lethal weapon as indicated by the sharply cut surface at the top (Pl. I. *a*). Fortunately, the lower part of the slab, though considerably damaged and disfigured, is extant (Pl. I., *a*, *b*). The present example is an equally measured four-faced slab, each face measuring 12·01 cm. in breadth (Pl. I. *b*). The extant height of the slab is 20·08 cm., and its square base is flat and plain measuring 12·05 × 12·05 cm. Each of the four faces of the stele contains niches and horizontal panels with series of compartments bearing representations of figures, plants, flowers and other motifs (Pl. I.).

The upper part of the slab's face No. 1 (Pl. II. *a*) contains a deeply cut recess enclosing a modelled standing figure resting on a lotus pedestal, the lower part of which on right is only extant. The drapery is bereft of any fold. The figure appears to be that of a standing Buddha. Both left and right sides of the recess are damaged and nearing the edge on right, there is the carving of a beautiful lotus bud. Below, there are two horizontal panels, each containing six rectangular compartments of almost equal size (1·05 × 2·05 cm.). Beginning from right, first, second, third and sixth compartments of the upper panel enclose a miniature shrine (?), geometrical design, *ghaṭa* (ritual pot) and snake respectively. The representations inside the fourth and fifth compartments are indistinct. From right, the second, third, fourth and fifth compartments of the lower panel bear plough, lotus, *triśūla* (trident) and flower respectively. The reliefs inside the first and second chambers are indeterminate.

The face No. 2 (Pl. II. *b*) bears a deeply cut niche enclosing another gracefully modelled standing figure resting on a lotus pedestal like the previous one. Here, the lower part of the figure with foldless drapery is better preserved. This figure appears also to be that of a standing Buddha. On left and right of the recess, faint traces of two attendant figures are extant. Below, there are two horizontal panels, each containing six compartments of almost identical sizes (2·00 × 2·00 cm.) bearing carved motifs. From right, the reliefs inside the first and second chambers of the upper panel and the first, second, fourth, fifth and sixth of the lower one, are indistinct. Other compartments of the upper and lower panels enclose the carving of a plant, conch, umbrella, *dhvajā* (flag) and *ghaṭa* respectively.

On face No. 3 (Pl. III. *a*) of the slab, two recesses and one horizontal panel are extant. The upper recess encloses an admirably modelled seated female figure whose right foot rests on a lotus pedestal upon a boldly carved lion. The lower right hand of the figure appears to hold a lotus(?) or a *vajra*. The seated female figure is perhaps the representation of the Buddhist deity Tārā as *Siṃhanāḍa*. Below is the second niche bearing two beautifully carved figures in relief; the one on left is a seated male figure in a kneeling position with folded hands, and the one on right is a female figure sitting in a cross-legged posture with the right hand resting on the ground and the



(a) Stone slab: Showing its two faces and sharply cut surface at the top.



(b) Stone slab: Showing two other faces.

[FRAGMENTARY CARVED STELE]



(a) Face No. 1: Showing lower portion of a carved standing figure and decorated panels.



(b) Face No. 2: Showing lower portion of another carved standing figure and decorated panels.



(a) Stone Slab: Face No. 3: Showing lower portion of a carved sitting figure, and niche bearing carved figures and decorated panel below.



(b) Stone Slab: Face No. 1: Showing panels and carved figures.

left one raising upwards, perhaps holding a flower. The two figures might represent a pair of devotees or donor-couple. From right, the first and the fourth compartments of the lower panel bear fire altar(?) and an elephant and the middle one, perhaps a *ghaṭa*.

There are equally measured four horizontal niches and one panel on face No. 4 (Pl. III. *b*). From the top, each of the first two niches bears three seated female figures with an analogous hair-dressing pattern. But their sitting postures are different, and their left hands possibly hold flowers. The third niche encloses three extremely interesting figures: the one on left is represented in a kneeling position with one hand resting on the ground and the other raising upwards, and the one on right is a front-facing seated figure with the left hand resting on the ground. In between these two figures there is a peculiar carving of a seated figure with conically pointed beard hanging down. The fourth niche encloses three female figures; the one on left faces rightwards and holds sweets or a basket(?) touching the hip of the central figure carved in a crawling position facing right. The seated figure on right is considerably damaged. The lowermost panel includes six rectangular compartments bearing motifs which are all indistinct, excepting the fifth and sixth ones on left enclosing swan(?) and lotus. It is evident that the face No. 4 of the slab contains mythological story-telling panels (Pl. III. *b*).

The stone slab bearing all the above mentioned carved reliefs is unique of its kind. Four-faced stone slabs with carved reliefs are known from Gārhwā. The Mathurā votive slabs called *āyagapaṭṭas* may be also alluded to in this connection. The Jaina *Chaturmukha* or *Chaumukha* slabs have been found at Chhatra (Puruliā, West Bengal) and also at many other places of Rājasthān and Western India. But the compositions of all these stone slabs are different. The present stone slab contains the figures of the Buddha, Tārā and story-telling and motif-bearing panels. Similar slabs bearing the figures of the Buddha were found from Sārnāth and other places. Almost similar figures of the Buddha and Tārā were also made at Bodhgayā and Hāzāribāg. Is this stone slab under discussion a votive *stūpa* bearing the figures of the Buddha, Tārā and other motifs?

The present stone slab from Mādhuniā contains admirably worked out details. First, the slab is profusely decorated with bas-reliefs and hardly any vacant space has been left out. Secondly, the reliefs are diverse and detailed and the balancing of the figures on the face No. 4 has been done creditably. Thirdly, the modelling in the round of the extant legs of the standing and seated figures is also significant. Fourthly, the absence of drapery-folding is also worthy of notice. Fifthly, the highly interesting hair-dressing patterns and the absence of elaborate ornamentation on the carved figures are well-marked characteristics. Sixthly, the sitting postures of the carved human figures are also remarkably attractive. Lastly, it must be admitted that the carving of various motifs on the stele has been also meticulously worked out. All the motifs represented on the stele are indeed full of ritual import.

On the whole, the stone slab under discussion is characterized by closely packed compositions, diverse and detailed reliefs, meticulous working of details, admirable balancing of figures, graceful modelling, multiple hair-dressing patterns and sitting postures, carving of various motifs, *etc.* Taking into consideration the modelling of the figures and carving of motifs, the present stone slab may be attributed to c. seventh-eighth century A.D. It was perhaps a votive stele. No stone slab with analogous carved composite reliefs is yet known from any other parts of Bengal.

DISCOVERY OF TWO PLANT FOSSIL FRAGMENTS FROM RĀJBĀDĪDĀNGĀ

S. R. DAS

(Communicated in November, 1969)

The subject matter of the present communication is a report on the discovery of two extremely significant plant fossil fragments during archaeological excavations at Rājbadīdāngā (Murśidābād district, West Bengal) conducted by the Department of Archaeology of the University of Calcutta.

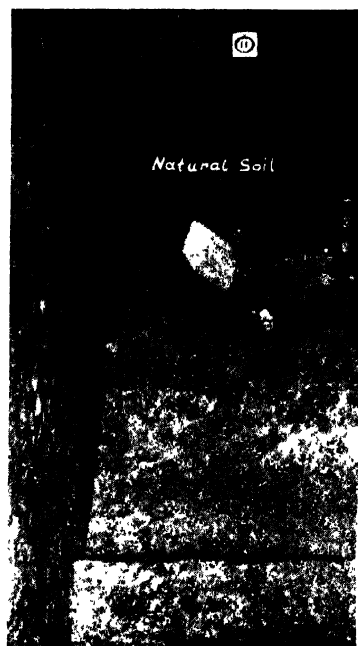
While continuing diggings below the earliest occupation level at the site, two fossil fragments were unearthed at a depth of 13'6" below the present surface and 86·83 ft. above the mean sea level. These two fossil fragments discovered *in situ* measure $4" \times 2\frac{1}{2}" \times 1\frac{1}{2}"$ and $1\frac{3}{4}" \times 3" \times 1"$ (Pls. I., II). Both the fragments were found embedded in the natural soil composed of yellowish compact clay (Pl. I; Pl. II).

These two plant fossil fragments have been examined by Prof. A. K. Ghosh of the University of Calcutta. According to the report submitted by Prof. Ghosh, the plant fossils belong to the *Moraceae* family and that they might be ascribed to the latest Pleistocene and earliest Miocene Ages (one million to 25 million years ago).

Plant fossils belonging to the *Cainozoic* Era have been discovered from several parts of West Bengal, more particularly from Bolpur in Birbhūm district and Garbetā in Midnapur district. But the details of these fossil finds have not yet been fully worked out. No plant fossil of this variety has yet been discovered from the region of the recovery of the present examples.

It is indeed surprising that plant fossils of more than one million years old were found embedded in the natural soil during stratified diggings at a historical site. Regarding the stratigraphical position of the fossil fragments it may be pointed out that they were found *in situ* at a depth of 3'3" below the earliest occupation level at the site, and the digging in the trench was continued up to a depth of 14' below surface. Just below the occupation level, was unearthed a silt deposition varying in thickness from 3" to 9" and indicating an inundation caused by the overflow of water from the river Bhāgirathī. The first occupational evidence in this excavated area of the trench lay over this silt deposition. Below the silt deposition, the cutting was continued through the natural soil up to a depth of 3'5" (Pls. I & II). The plain cutting witnessed no disturbance whatsoever. Naturally, the question arises as to how these two fossil fragments got embedded in the natural soil at the present site under excavation. This is indeed a knotty problem.

Another problem relates to the determination of the original source of this kind of plant fossils. There is little possibility of the fossilization of these plants in the region of their discovery. In fact, these fossils in question are foreign to this particular area in the district of Murśidābād. The probable source of this kind of fossils is perhaps the Siwaliks in the Himalayas. It may be accordingly suggested that the two fossil fragments might have drifted through the Gaṅgā and deposited at the present site of their discovery. Nothing in particular can be said about the time of their drifting and deposition. It is, however, known from archaeological records unearthed at the site that the earliest occupation at Rājbadīdāngā can be well attributed to c. second-third century A.D. Accordingly, the fossil fragments were perhaps deposited at the site long before the earliest occupation at Rājbadīdāngā.

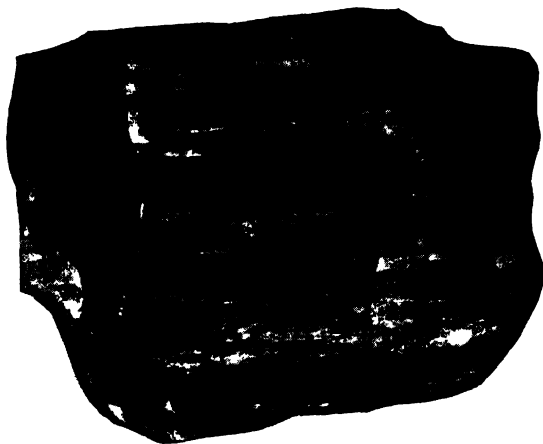


(a) Rājibādīdāṅgā: Cuttings Showing two plant fossil fragments *in situ*.



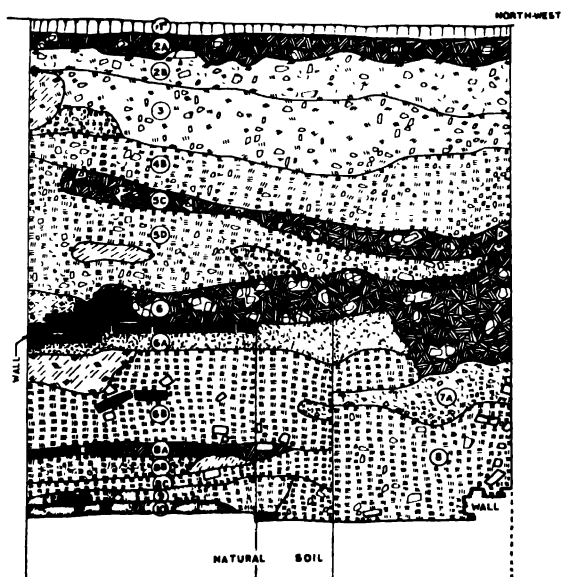
(b) Rājibādīdāṅgā: Cuttings in the trench A⁴ and plant fossil fragments *in situ*.

PIANT FOSSIL FRAGMENTS]



(a) Rājbadidāngā: One plant Fossil fragment.

RAJBADIDANGA 1966-67.
SITE-RD: AREA-S TRENCH-A4.



(b) Tr. A⁴: Section facing West showing layer compositions and the locus of the fossil fragments.

PLANT FOSSIL FRAGMENTS]

If the Siwalik region is the possible source of this kind of plant fossils, the only plausible explanation is that they drifted to the present site. But how and when these two fossil fragments drifted to the locus of their discovery cannot be properly answered at the present state of our knowledge. Yet, the unearthing of these two fossil fragments at Rājbaḍidāṅgā is indeed extremely significant. Further study on plant fossils recovered from different parts of Bengal might throw fresh light on the problems connected with the discovery of these two fossil fragments from the excavated site of Rājbaḍidāṅgā.

AN ALLUSION TO KANISHKA IN THE *SUŚRUTA-SAMHITĀ*

B. N. MUKHERJEE

(Communicated in January, 1969)

In course of describing different preparations of meat the *Suśruta-samhitā* states that heavy (meat called) *Khānishka Māṃsa* is wholesome (only) to those whose digestive power is ablaze (*i.e.*, strong) (*diptāgninām sadā pathyaḥ Khānishkastu param guruḥ-Suśruta-samhitā*, 46, 1, 398). It appears that a kind of preparation of meat was called *Khānishka*, meaning that it was named after or related to *Khanishka*. As the term seems to be a non-Sanskritic one, its occurrence in a Sanskrit text like the *Suśruta-samhitā* may indicate that it may be interpreted as a proper name. The word reminds one of the name of *Kanishka*, as *ka* could be easily changed into *kha*. On the analogy of certain types of food having been named after regions, dynasties, or places (*Dhākāi Paraṭā*, *Chinā Kābāb*, etc.), it may be surmised that a certain preparation of meat introduced in India by the Kushāṇas or known to have been enjoyed by them, might have been associated with the name of the great Kushāṇa ruler *Kanishka*(I?). If such an interpretation is acceptable, we have here an interesting information on the social customs of the Kushāṇas. Incidentally this will also suggest that the present form of the *Suśruta-samhitā* cannot be earlier than the period of the Kushāṇas.

AN INTERESTING COPPER COIN

B. N. MUKHERJEE

(Communicated in April, 1969)

The obverse legend of a copper coin in the British Museum, carrying a bust to right on the obverse and the figure of Pallus hurling thunderbolt on the reverse, can be read as . . . *Ozoulo*. Only the word (*raja*) *dirajasa* can be deciphered in the mutilated Kharoshthi inscription on the reverse [Pl. Ia]. The only known names of rulers which may have been alluded to in the remnant portion of the above legend are those of Kujula and Rājuvula or Rājula. It should, however, be noted that the latter ruler is referred to in the expression *Razu* (= *Razou* < *Raza* or *Razo*?) occurring in the Greek inscription on the obverse of his coins. Moreover, the Kharoshthi inscriptions in his different types of species do not ascribe to him any regal title (J. Allan, *A Catalogue of Indian Coins in the British Museum, Catalogue of the Coins of Ancient India*, pp. 185-187). The imperial titles on the obverse of his "bust: Pallas" coins are mere imitations of a part of the legend occurring on their prototype struck by the Strato group (B. N. Mukherjee, *An Agrippan Source—A Study in Indo-Parthian History*, p. 146). On the other hand, imperial titles and also the expression *Kozoulou* do appear on different pieces of Kujula (R. B. Whitehead, *Catalogue of Coins in the Panjab Museum, Lahore*, vol. I, pp. 179-180). Hence the coin in question may be ascribed, at least in the present state of our knowledge, to Kujula. The "bust: Pallas" type has already been attributed to an area to the east of the Jhelum (B. N. Mukherjee, *op. cit.*, p. 146).

SOME INSCRIBED SLABS OF STONES IN THE NEIGHBOUR-
HOOD OF NALANDA STONE TEMPLE RUINS •

RAMPRASAD MAJUMDAR

(Communicated in May, 1969)

A number of large stone slabs lie scattered near the Nalanda temple. Some of these slabs weigh 4 or 5 maunds. Two of these stones contain one letter or symbol each, three bear three letters, one, four letters, and one five. There may be other inscribed storics also. Hirananda Sastri observed that the 'script of the inscriptions found on some of the stones on the northern side of the eastern face cannot be later than the 6th or 7th century A.D., but the script on the stone slabs are prior to the 8th century A.D.' The stone slabs bear symbols also. The *Swastikā* symbol is typically Hindu and one inscription probably bears the name of *Kaśava* referring to a god or a donor. On the temple wall there are several sculptural representations which are Brahmanical in theme and some are analogous to those from Pāhārdpur. The second letter of the first inscription seems to have been used more than once in inscriptions. It is interesting to note that the letters "sa" and "va" which may be earlier than the 8th century A.D. are similar to modern or late mediaeval Bengali script. It may not be impossible that one or more of these inscribed stones were designed by the Bengalis or that some scripts are allied to some Bengali scripts of the time or influenced by the latter.

AN INTERESTING INSCRIPTION

B. N. MUKHERJEE

(Communicated in June, 1969)

An icon, presumably found in Nepal and preserved in a collection in the U.S.A., bears an interesting inscription [see Pl.]. It can be read as follows:

- L1. *Deyadharmmoyaṃ* (II*) *Laḍitagrāmeyam*
Khaliyāri (?) *Sākyabhikṣhunā*
- L2. *parisuddhamatya* (II*) *Yadattrā*
ṣṇam tadbhavatu sarvasattvānā(m)*
- L3. *anuttara sarvajña-jñānāvaptayeti* (II*)
Saṃvat
- L4. 300 70 3 (II) *Chaitya-kūṭa-*
jina-Anna-vihār(e) Pūrvabhūṭṭe*
sthera Piṇḍakena bhojanam
krattavya(m)* II.

NOTES ON THE READING

The inscription is written in Brāhmī and in nearly perfect Sanskrit. The forms of the letters may be compared with those of the Brāhmī letters (of North-Eastern India) of the 5th, 6th and 7th centuries. A.D. Of the orthographic peculiarities, mention may be made of the occurrence of an *otiose* subscript *r* after *ka* in *krattavya(m)* (line 4). [It should however, be noted that neither the subscript *r* nor the conjunct letter *rtta* is clearly noticeable]. We can also note the form *Laḍita* (= *Lalita*) in line 1.

Punctuations and letters marked with asterisk do not occur in the extant portion of the epigraph and are inserted for the sake of grammatical rules and clarity of the text. “*Kya*” of the fourth word in the first line does not occur in its proper place and can be noticed at the end of line no. 2. The scribe put it within two sets of strokes looking like inverted comas, and indicated its proper place by engraving one set of similar strokes above *Śā* of the fourth word of line no. 1. The reading *ri* of the word *Khaliyāri* is not certain. This word must be considered to represent a proper name, as otherwise it does not make any sense.

TRANSLATION

“This is the religious gift (.) This (gift) is in Laḍitagrāma (given) by Khaliyāri, the Buddhist nun, whose mind has become extremely pure (.) Whatever merit is there in this (act of gift) be for the attainment of unsurpassed knowledge of the all knowing person (i.e., the Buddha) of (i.e., by) all beings (.) The year 300 (+) 70 (+) 3. At Pūrvabhūṭṭa in the Anna-vihāra (i.e., in the monastery called Rice-monastery) of Jina, who at the summit of the chaitya (or who is in the hall of the chaitya), meal should be taken by (or provided by) the elderly monk Piṇḍaka.”

NOTES

This inscription appears presumably on the pedestal of an image. Hence the image itself was the “religious gift” (*deyadharmma*).

If this image is from Nepal, *Laḍitagrāma* (= *Lalitagrāma*) may be identified with the famous place of nearly the same name.

Pūrvabhūṭṭa cannot be identified. However, it could have been the name of a locality in *Laḍitagrāma*. The *Anna-vihāra* was so named probably because food was used to be distributed from there. It was dedicated to Jina, whose image was installed in the shrine of the monastery or at the summit of the stūpa of the monastery. There are instances of installation of images of the Buddha at the summit of stūpas.

Palaeographically this inscription may be attributed to the 5th, or 6th, or 7th century A.D. So the era in which the 370 is dated may be identified with the Gupta Era or even with the Śaka Era.

It should, however, be noted, that the signs of punctuation in this epigraph seem to be more developed than those known to have generally occurred in the records of those centuries. Moreover, the system of producing inscriptions from casts, as the raised letters suggest, became popular in a comparatively later period. (Only known exception from an early period is found in the Shagaura copper-plate.) At the same time, the occurrence of the form *Laḍitagrāma*, which is philologically related to *Lalitagrāma*, and some other features indicate that the epigraph was not composed by a modern uneducated scribe. Can we suggest that the epigraph is a modern or semi-modern copy of an ancient inscription ?

PLATE I

a)



An Interesting Copper Coin

b)



An Interesting Intaglio Seal

c)



A Coin of Sanabares

AN INTERESTING INTAGLIO SEAL IN THE COLLECTION OF PROFESSOR S. K. SARASWATI

B. N. MUKHERJEE

(Communicated in July, 1969)

There is an interesting intaglio seal in the collection of Professor S. K. Saraswati of Calcutta. It was found somewhere in the north-western part of the Indian subcontinent. It shows a female facing left. She wears a chiton reaching down to her feet, and has a *polos* head-dress. In her left hand she holds a cornucopia. Stalks of two lotuses are held by her right hand [Pl. Ib].

The presence of *polos* as well as the horn of plenty distinguishes her, *among others*, as Tyche, the goddess of fortune. On the other hand, the lotuses held by a female in Greek attire remind us of Ambā, the tutelary head of Pushkarāvati or 'the lotus-city,' as depicted on a British Museum gold medal (*Numismatic Chronicle*, 1965, pp. 109f). This medal displays the figure of a bull on the reverse. It can be recognised as Śiva's mount, as the obverse shows the figure of his consort Ambā.

The female figure on S. K. Saraswati's intaglio can indeed be identified as Ambā-Tyche of Pushkarāvati, if we consider the fact that some square copper coins of the Indo-Greek ruler Philoxenus, which bear on the reverse Śiva's mount bull, show on the obverse a lady, wearing chiton and *polos* head-dress, as holding a cornucopia in her left hand and a half-opened lotus (?) in her right hand.

THE ORIGIN OF THE ŚAKA ERA

R. C. MAJUMDAR

(Communicated in July, 1969)

In the last issue of the *Indian Archaeology* (1967-8) (an Annual Review published by the Archaeological Department of the Government of India), recently published, a very brief reference has been made to an inscription, dated Śaka II, belonging to the reign of Caṣṭana, the founder of the ruling dynasty known as the Western Kṣatrapas (p. 52). There is no detailed account nor any comment. But this very bare announcement seems to be a very important discovery which may throw considerable light on the baffling problem of the Kuṣāṇa chronology and the origin of the Śaka Era. In the first place, this inscription makes it very likely that the Śaka Era was introduced in India by the Western Kṣatrapas, and was deliberately founded as a new era to commemorate the foundation of the Śaka power in Western India by Caṣṭana (or his father).

It is, of course, quite likely, that the Śaka Era, like the Gupta Era, originated by continuing the use of the regnal year of the founder of the dynasty by his successors, and this view is supported by the newly discovered inscription of Caṣṭana, dated in the year 11. But this also is fully in agreement with the view that the Śaka Era, was founded by the Śaka rulers known as the Western Kṣatrapas, ruling in Gujarat. This was suggested long ago by some who did not regard Kaniṣka as the founder of the Śaka Era. The suggestion was based on the fact that the earliest use of the Śaka Era, definitely known as such, was confined to the region close to the kingdom of the Western Kṣatrapas who were Śakas, ruled for a long period, and are known to have officially used the Śaka Era continuously for three centuries and more.

The supporters of the theory that Kaniṣka, who was a Kuṣāṇa and not a Śaka, founded the era called Śaka Era, held that the name Śaka Era occurred for the first time in an inscription dated in the year 500 of that Era, and it is easy to imagine that during this long interval the people forgot the difference between Śaka and Kuṣāṇa and referred to all these foreign rulers by the general name of the Śaka. But recently we had an instance of an earlier date, namely, 380, and the issue of the '*Indian Archaeology*' mentioned at the beginning, which refers to the inscription of Caṣṭana dated year 11, also refers to another inscription in the same region dated Śaka 254. This is specially important, for at that time, as we know from the Allahabad Pillar Inscription of Samudra-gupta, the Śakas were clearly distinguished from the "Daivaputra-Sāhis-Sāhānuṣāhis," an expression which undoubtedly referred to the Kuṣāṇas. It is, therefore, very unlikely that an era founded by Kaniṣka would *at that time* be referred to as Śaka Era. And the most natural and rational interpretation would be to regard it as the era which is known to have been used by the Śaka rulers of Western India, not only then, but continuously for more than three hundred years from the very beginning, and whose use was at first confined to their dominions and the region immediately in their neighbourhood.

Thus the two inscriptions in the Kutch Museum which are reported in the latest issue of the '*Indian Archaeology*' lead to two very important conclusions, namely,

1. That it is highly improbable that the Era, whose initial year falls in A.D. 78, and was known as Śaka Era at least from the beginning

- of the fourth century A.D., was founded by the Kuṣāṇa king Kaniṣka, as the Śakas and the Kuṣāṇas were known to be distinct peoples at that time.
- 2. That the Era was most probably founded by the Śaka ruler Caṣṭana whose name and fame reached the ears of Ptolemy in the middle of the second century A.D., or at least marks the beginning of the Śaka rule under Caṣṭana or his predecessor in Western India.

It may be argued that Caṣṭana was the Governor under Kaniṣka, but it is hardly credible that in the year 11 of Kaniṣka's reign, when he must have been in the fullness of his power, any Governor of his would date the inscription in his own name rather than his suzerain. An analogous case is furnished by the Saranath Inscription which mentions a Kṣatrapa and a Mahākṣatrapa of Kaniṣka, but the date is given as the regnal year of Kaniṣka.

The whole question may be properly discussed in detail only when the two inscriptions, on which this communication is based, are published, and it is only intended to show the great importance of the two records in solving the knotty problem of the Kuṣāṇa Chronology and the foundation of the Śaka Era.

A COIN OF SANABARES

B. N. MUKHERJEE

(Communicated in September, 1969)

A coin in the cabinet of the Hermitage, Leningrad, can be described as follows:

Obverse: The head of a male figure to left, wearing a helmet, a diademmed fillet with flowing ends and cheek plates; the head radiates; border of dots, partly out of flan; inscription in the cursive Greek characters—*Sanabar*.

Reverse: Apollo standing to right, holding a bow in his left hand and an arrow (drawn from a quiver on the back?) in his right hand; inscription in the Greek script, which may be partly read as . . . *Megas (Sana)barou* [Pl. Ic].

The coin in question, which weighs 39.28 grains, thus refers to a person called Sanabares. The palaeographic features of the legends may assign the piece to the 1st century A.D. Hence the issuer in question may well be identified with Sanabares, the Indo-Parthian(?) ruler of about the middle of the 1st century A.D. He is known to have ruled in certain areas including Sakastan and Arachosia.

The coin under discussion bears only legends in the Greek characters, as was usual with the species of Sakastan during the period in question. The Archosian pieces of the same period generally carry both Greek and Kharoshthi legends.

The coins of Sanabares, carrying only Greek legends, might have been meant for circulation in a western area of Arachosia, lying near Sakastan, where Kharoshthi might not have been so popular as in other parts of Arachosia. These might have been struck even in a territory in Sakastan bordering on Arachosia for circulation in the border area after Arachosia or at least the major part of it had been occupied by the Kushānas. The same observations may be made about the "bust: standing Apollo" coin of Sanabares, which carries only Greek inscriptions. This piece might have been influenced by the "Gondopharian symbol: standing Apollo" coin-type carrying only Kharoshthi inscription (*Numismatic Supplement*, no. XIV, 1910, pl. XXXIV, no. 17).

ŚAKROGARH

ADRIS BANERJI

(Communicated in December, 1969)

Those who had occasion to pass by the railway station of Sahelganj never realised that they were passing by an ancient site in one of the most strategic areas on the periphery of West Bengal. Śakrogarh is an uncharted site, whose tactical advantages were extreme. The area between Lakhisarāi and Tinpāhār, on the Barharwa-Kiul Loop line of the Eastern railway, was the only course which invading armies could follow to gain access to the Gangetic delta, North Bengal and countries on the eastern coast, like Odra, Utkala and Kalinga. In fact, the region has justly been described as the 'Gallipoli of Bengal'. It extends for an area of 741 square miles, measuring 40 miles from North to South and 30 miles from east to west. To the north and east, the boundary is the Ganges and on the west is the Bhagalpur district. To the south the boundary is a chain of hills and tablelands forming the watershed of the Gurnani and Bansloi rivers. These chains start from Kiul station, locally known as Kharagpur hills and merge themselves in those of the Santal Parganas, that is Dumka and Pakur sub-divisions of the same district and Rampurhat sub-division of Birbhum district. Therefore nature had deliberately created the whole of the western portion, extending almost over the three fourths of the total area to be full of hills, valleys and jungle tracts of the ancient Kajaṅgala deśa. A buffer state, between Aṅga and Uttara Rāḍhā. To the north the hills run in an unbroken line parallel to river Ganges, thereby leaving only a narrow strip of land at the disposal of the marching armies. For long centuries these were great obstacles to the military campaigners that wanted to march from and to Bengal. Naturally the human mind made every effort to have the area properly fortified for holding this area against enemy action, which agrees with the definition of *giri-durgas* in Kauṭalyas *Artha-Śāstra* and Manu Canto VII.

The other cause of caution apart from the mountainous upheavals caused by seismic disturbances, was the river Ganges with its swift change of courses. Because, notwithstanding its various moods it offered many places for ferrying or fords from the North Bihar sides now represented by Mungher and Purnea districts. One such ferry even now exists at Baṭeśvarasthāna near the vast ruins of Vikramaśilā monasteries. The next was Sahelganj, which is the station when Gaṅga is in spate in monsoon and is replaced by Maṇihārighāt, during summer and winter seasons. A couple of its sister institutions are well known to the historians, such as Sakrigali, close to the Ganges, 6 miles to the east of Sahelganj now almost levelled to procure stone chips for railway lines and Teliyāgarhi near Karamtalā station on the Kiul-Sahelganj Loop Line, 7 miles west of modern Sahelganj city.

After searching the Tinpāhār area and visiting Rājmaḥal I was in the look out of a hill fort mentioned by the late R. D. Banerji, to have been located on a hill at Sahelganj observed by him. But the compensation was more than enough. I was informed that there were several sculptures in the Sahelganj Railway School and the local degree College. There I learnt, that they were collected from place called Śakrogarh now a ward of the Sahelganj township. It occupies an area about 12 *bighās* surrounded by a moat, about 1½ miles south west of Sahelganj railway station. In fact the bungalow of Sub-divisional Officer, Rājmaḥal, had been built on it, but, the major portion of the area was available for excavation. Rising from the

moat two terraces are clearly discernible representing probably the defences above the moat and the citadel proper.

The moat is gradually silting up. The name itself is also very significant. Śakrogarh (sic. Śakragarh) is probably the ancient name of modern Sahebganj, founded to house Anglo Indian Railway employees for its climate. From this fort the pass beyond was called Śakragali which vulgo has transformed into Sakrigali. Sakro is derived from Śakra a name of Indra in Pali literature.

The associated objects, that I found were Gupta and Pāla potteries—buff wares and Green enamelled muslim pottery as found by me at Bhitri and several sites near Malda such as Pipili.

Pediments of local stone as opposed to Rājmahal schist or slates containing festoon garlands with *Makara* and *Kirttimukhas* within them. Vyālas with riders. The images of Śiva, Gaṇeśa, Pārvati and Viṣṇu possibly of the Pāla period. The material calls for notice. The local stone a fine grained variety probably indicates folk art practice as opposed to the official Pāla school who were devoted to the Rājmahal stone.

I deeply regret that I did not bring any photos which are with Mid Eastern Circle Office of the Archaeological Survey.

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